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ABSTRACT

This document is a work plan for the UNESCO Asia and the Pacific Programme of Educational Innovation for Development (APEID) for the period 1992 through 1996. The plan provides a general framework for APEID, including a formulation of annual schedules of activities with due regard to available resources and funding. The document discusses three major program areas: (1) universal primary education; (2) science, mathematics, and technology education; and (3) reorientation and qualitative improvement of secondary education. The plan further divides each major program area into individual action areas. A general discussion of the proceedings is included; lists of participants and members of the task force are attached. (LBG)

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ASIA AND THE PACIFIC PROGRAMME OF EDUCATIONAL INNOVATION FOR DEVELOPMENT

APEID

WORK PLAN OF APEID

for the Fifth Programming Cycle 1992 - 1996

ED356154

SO 022 340

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ASIA AND
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INNOVATION
FOR DEVELOPMENT

APEID

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for the Fifth Programming Cycle 1992 - 1996

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FOREWORD

The Asia and Pacific Programme of Educational Innovation for Development (APEID), launched in 1973 at the recommendation of the Third Regional Conference of Ministers of Education and Those Responsible for Economic Planning in Asia (Singapore, 1971) and by authorization of the General Conference of Unesco at its 17th session (Paris, 1972), is reviewed by the participating Member States every two years in order to assess part performances and identify emerging issues and problems for which innovations could help solve. In addition, before a new programming cycle of APEID begins, the Member States get together to prepare a work plan of APEID for the next five-year cycle, based on the consultation process which provides directions and guidelines for APEID activities in the future. Thus the principle of the Member States co-operatively designing, developing and evaluating APEID is maintained.

Accordingly, the Twelfth Regional Consultation Meeting (RCM) on APEID was convened in Chiang Mai, Thailand, from 20 to 27 August 1990. The report of the RCM is printed as a separate publication. Also, since the fourth programming cycle of APEID would end in 1991, and the fifth cycle will begin in 1992, the Twelfth RCM was followed by a Programme Development Meeting (PDM) from 28 to 31 August 1990. The outcome of the PDM is documented in this publication, which is the work plan of APEID for its fifth cycle, 1992-1996.

This work plan provides a general framework for APEID activities during its fifth cycle. On the basis of this work plan, annual schedules of APEID activities are formulated, with due regard to available resources and funding.

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P R O C E E D I N G S

Background

The Programme Development Meeting (PDM) on APEID was held in Chiang Mai, Thailand, from 28 to 31 August 1990, following immediately the Twelfth Regional Consultation Meeting on APEID (20-27 August 1990).

The main task of the PDM was to prepare a draft work plan of APEID for the fifth programming cycle (1992-1996), based on the guidelines and recommendations made by the Twelfth Regional Consultation Meeting for future programming directions. In particular, the function of regional efforts to strengthen national capacities for innovation in education formed a foundational and pervasive injunction to the PDM.

Participation

The PDM was attended by 37 participants, resource persons, and observers from Australia, China, Democratic People's Republic of Korea, Fiji, India, Iran, Japan, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of korea, Samoa, Socialist Republic of Viet Nam, Sri Lanka, Thailand, Tonga, Turkey.

The list of participants is at Annex I.

Officers of the Meeting

The PDM was chaired by Dr. Kowit Pravalpruk (Thailand), and Ms. Fran Hinton (Australia) was the Rapporteur. The Secretary of the meeting was Dr. Leonardo de la Cruz, Head of ACEID, Unesco Principal Regional Office for Asia and the Pacific.

Working methods of the meeting

The PDM conducted its work principally in three task forces, each related to a major programme area as identified by the Twelfth Regional Consultation Meeting on APEID, viz.

1. Universal primary education
2. Science, mathematics and technology education (including Science for All)

3. Reorientation and qualitative improvement of secondary education (including general education and vocational/technical education).

The convenors of the three Task Forces were:

Task Force I : Prof. J.S. Rajput

Task Force II : Dr. Kowit Pravalpruk

Task Force III : Ms. Edna Tait

The resource persons served as rapporteurs of the Task Forces.

The list of members of each Task Force is at Annex II.

The three programme areas mentioned above, though considered separately by their respective Task Forces, were nevertheless linked by common concerns for social justice, and for the rights of individuals of all nations to have access to knowledge, skills and values that will equip them to be citizens of the twenty-first century.

The PDM held periodic plenary sessions to enable each Task Force to report on the progress of the work, and to exchange and integrate ideas emanating from discussions.

The PDM held a plenary session on its last day, 31 August 1990, to adopt the draft action area proposals within each of the three programme areas which will form the basis of the work plan of APEID for its fifth programming cycle (1992-1996). The PDM transmitted the draft work plan to the Unesco Principal Regional Office for Asia and the Pacific (PROAP).

Special recommendation on APEID

In developing draft proposals for action for the fifth programming cycle within thhe framework of the recommendations made by the RCM, the PDM drew on the visions for the future articulated at the APEID Regional Symposium on Qualities Required of Education Today to Meet Foreseeable Demands in the Twenty-first Century, held in Bangkok from 16 to 18 August 1990.

The Member States noted that presaging regional planning and design efforts with a futures-oriented symposium was an innovative mode for focusing attention on issues and the implications for education in the region.

The success of this first attempt prompted the participants to recommend highly that future broad consultative planning and programming activities of APEID should also commence with a short futures-oriented symposium, that brings together eminent thinkers of the region. The specific topics for such symposia may be identified through consultations with Member States.

The participants found this suggestion convergent with the spirit of Major Programme I of Unesco's Third Medium-Term Plan (1990-1995) entitled "Education and the Future", with Programme I.2 focused on "Education for the Twenty-first Century".

WORK PLAN

MAJOR PROGRAMME AREA: UNIVERSAL PRIMARY EDUCATION

Introduction

Universalization of primary education is one of the major concerns in education in most of the member countries. While several of them have legal and constitutional provisions for compulsory primary education, in practice it has not been possible for all of them to bring all the children within the ambit of UPE. It has been increasingly realized and acknowledged that mere provision of facilities in terms of access is not sufficient to achieve the goal. The concern has now shifted to quality of education and achievement levels of children, along with the necessary facilities in terms of access and provision of infrastructures. There is need to assess the requirement of learners, their circumstances and constraints, and adjust the formal or non-formal education facilities accordingly.

Among those who are not in schools or who have dropped out of the system prematurely, no uniformity of approach is likely to succeed. There are specific groups which are much more disadvantaged than others. These were the major concerns and were identified as girls, rural areas (including remote and isolated areas), urban slums and special groups which may include minorities, nomadic and migrating groups. The girls and rural population, as also the urban slums, are practically the major groups to be looked after in most of the countries. It can be safely inferred that the education of girls has suffered most in the past and deserves maximum attention at this stage.

The second major category which requires specific attention in educational plans of each country is that of the disabled. While many of them can be integrated in the mainstream of education, those with severe handicaps would require special institutions. While all teachers are to be provided orientation in looking after the disabled pupils in the mainstream, special training and rehabilitation facilities will be required for severely handicapped children. Sharing of experiences at regional levels would certainly help. An urgent need is the identification of the various categories of the disabled who can be educated in "normal" school situation and those who will require special institutional care.

Education must be geared to meet the learning needs of the pupils. Learning should attempt to prepare children for adult life where they can contribute to community life substantially and improve their own quality of life. Innovative responses to learners' needs in primary education is the third distinct area

where tangible action programmes in terms of studies, research, implementation techniques and strategies are to be identified, analysed and implemented. A majority of these would be contributing to improving the quality of basic education, linking education to life and to establishing a much desired teacher-parents-community interaction. Once this is achieved, problems like inadequate enrolment and subsequent dropouts would be easier to handle.

The fourth major area identified for the fifth cycle of APEID in UPE was that of co-operative programmes for its promotion of UPE. The basic emphases in these would be on the periodic reviews at national levels of all components of policy implementation including the significant aspect of morals, ethics and values. In-country research activities could be encouraged and experiences of work already done compiled and disseminated. This could be regularly undertaken. Strengthening of data base within the countries and a properly functioning regional level information network could really augment the policy changes and provide new directions in terms of strategies of implementation.

Education of girls is an area which is amenable to cooperative networking of APEID Associated Centres of the South Asian countries of Bhutan, Bangladesh, India, Nepal and Pakistan, in which the participation rates of girls in primary education continue to be low. It would be useful, as a first step, to set up under the APEID, an expert group to study in depth the problems of girls' educa ion and to design strategies to promote it. Exchange of informaiton and study visits for exchange of experiences would be mutually beneficial.

* * * * * * *

Action Area: Programmes for the Disadvantaged Groups

The concern for the disadvantaged Groups in terms of their participation in universal primary education (access, completion of the level and attainment of the prescribed level of education) has begun to receive attention in educational planning effort in each member country. It is consequently implicit in practically most of the programmes of APEID. The major concern is the education of girls. There are also those who are socially disadvantaged, tribal populations, residents of urban slums, communities living in remote and isolated areas, nomadic groups and migrating population, ethnic and racial minorities. Their situation in life makes it difficult for them to fully participate in education. Practically every country has to deal with some of these groups, if not most of them.

Girls and women

If education has to emerge as a tool to allow women their rightful place, the process of educational development must address itself in-depth with the constraints faced by women. Women in economically weaker communities in rural as well as urban areas play a critical role in ensuring the very survival of the family. The responsibility of providing food, drinking water, collecting fuel and fodder and, above all, earning a small wage is shouldered by women. The poorer the family, the greater is the burden on women and children. Among children, it is the girl child who shares this burden most. Often women's contribution is not acknowledged by the society; their image in society and even self-image remains inferior. Not only is a very low value attached to the literacy of women and girls, they do not have any other form of acquiring knowledge and information.

These aspects have no doubt been analysed and responded to in the effort at educational development. Experiences of innovative programmes for women and several voluntary efforts have established that a group of sufficiently motivated women could become an effective focal point for mobilizating the effort for education of girls and also for ensuring regularity in their participation in schools. Strategies which could encourage micro-level village-based planning for the provision of an educational infrastructure by village women's collectives are absolutely essential. This could also bring about the much needed change in attitudes towards girls' education, which unfortunately have not changed much in several sensitive sectors.

Education of women has to be geared to empowering them to play a positive role in their own development and the development of their children. It should enable them to identify their strength and assert collectively to use the education system towards promoting women's equality. Whenever necessary, the system must respond to the specific needs of girls and give due recognition to their pace and rhythm of learning by recognizing the constraints under which girls in economically weaker sections assist in earning, looking after the siblings and assisting in other chores. The rigidity of the formal sector should be replaced by flexibility and, wherever necessary, alternative strategies should be adopted in formal as well as non-formal sectors of education. Towards creating an environment suitable to these suggestions, a pool of talented and motivated women should be organized. Upgrading of the educational qualifications of literate young girls should be systematically encouraged. Women's access to vocational, technical and professional education must be promoted on a much larger scale. Basically, a

holistic approach to the education of girls should be adopted. The programmes which contribute towards these efforts, directly or indirectly, would certainly have a motivational impact and would catalyse the national-level effort.

Rural/isolated areas

Those residing in rural areas have disadvantages in terms of their preoccupation with economic activities, their need to earn wages at a very tender age, and other factors like attitudes towards education, rigidity of formal school structures and distances from school in many cases. The last is particularly significant in remote and hilly areas where roads and means of communication are yet not available. The question of providing incentives and facilities gains greater importance in these situations. The disparity in the availability of educational facilities and infrastructures in rural and urban areas is far too wide and is a matter of concern which is now increasingly being realized. Availability of qualified and committed teachers in rural areas and the need to meet adequately their professional and personal needs also deserve attention. The provision of additional allowances, residential accommodation, recruitment of locally available young persons and enabling them to upgrade their educational qualifications are some of several steps necessary to generate a climate suitable for UPE in rural areas.

Urban Slums

Urban slums are a very specific group. They are habitations of people the majority of whom have migrated from rural areas in search of greener pastures but have to make do with less than the basic minimum facilities required for a healthy living. The social climate in slums is far from conducive to the proper growth and development of children. The children are lured by unscrupulous persons to work for them for a pittance and learn anti-social behaviours at a very young age. Crime often flourishes in these areas and the children suffer. It has been realized that education in these areas can be handled by voluntary workers much more effectively than by state agencies. Education coupled with learning of productive skills, imparted at a time and place convenient to the learners, could attract children for primary schooling.

Minorities

Minorities in several countries have their specific needs in terms of education. Provision of education in the mother

tongue, in some cases, is not found convenient but has to be accepted and necessary provision made for it. Minority-run institutions and religious and other institutions could be utilized gainfully and strengthened wherever necessary. An entirely different category is that of the nomadic tribes and migrating populations. Innovative efforts have been made to take education to them and there are success stories in some countries. These need to be studied in-depth and similar efforts pursued more vigorously in future.

The adoption of a uniform approach for promoting universal primary education to all can no longer work. Unless the approach explicitly acknowledges and takes into account the specific needs of specific groups, particularly those who have been denied equality of opportunity for centuries in the past, it would be difficult to reach the goal of universal primary education for all segments of the population. Innovation, experimentation, in-depth research studies and an assessment of needs and requirements are prerequisites to successful UPE efforts.

a) Girls

Rationale

In some of the countries in the region the position of girls' education is rather dismal. In some countries the non-enrolled girls may constitute about 70 per cent of the non-enrolled children in the relevant age group. The literacy rate of women has been much lower as compared to that for men, more so in rural areas.

Non-availability of facilities alone is not responsible for the situation. Several factors have been identified and the magnitude of the problem is enormous. Apart from resources, promotion of education among girls requires motivation, attitudinal change, community awareness and response, women's empowerment and parents' education. Economic necessities, preventing children from going to school, are stark realities. Unless girls' education is handled on a priority basis, no efforts at UPE can succeed. Essentially, the lack of education among girls and women adversely affects the total process of development in national contexts.

Status of the problem/programme

Practically all member countries have realized the need for special efforts in educating girls, through formal as well as non-formal systems. APEID programmes have contributed to these

efforts in the past and the significance of these programmes has been realized and appreciated. These efforts should be strengthened during APEID's fifth cycle, and the growth of literacy rates among girls should show relatively much greater enhancement as compared to earlier years.

Without special efforts, the participation of girls in education will continue to remain low. This will have serious consequence on the effort to bring about equality of the sexes.

Objectives

Long-term

1. Enable women to find their place in society as equal partners;

2. Women's contribution to the national economy to be given clear recognition;

3. Provide equality of opportunity in seeking knowledge, information and participation;

4. Develop values, ethics and morals acceptable to the society.

Short-term

1. Support and promote efforts in generating parental and community awareness of the need to educate girls;

2. Utilize adult literacy programmes to enhance parental/mothers' motivation towards education of their female children;

3. Provide fora for curriculum developers to share experiences for developing curricula relevant to girls' needs, free from sex bias, including materials for distance education and self learning;

4. Promote steps towards the provision of access and participation of girls in formal as well as non-formal education systems, with an in-built flexibility and the provision of adequate incentives;

5. Make primary education adequate for learning of productive skills.

Expected outcomes

1. Increased awareness of and willingness for implementation of universal primary education for girls at national levels;

2. Mutual accountability of school/NFE and community;

3. More intensive innovations, mostly resulting from sharing of experiences in curriculum development, skills training, school community relationships and teacher preparation;

4. More professionally equipped resource centres at national levels, aware of their responsibilities and adequately equipped to accept new challenges;

5. Availability of print and non-print materials of special relevance to girls' participation in primary education.

Activities

Expected outcomes	Activities
i) Increase awareness of the problems faced in promoting education of girls;	i) In-country and inter-country seminar, attended in particular by female experts;
	ii) In-depth research studies on girls' participation in primary education and their in-country and inter-country dissemination;
	iii) Inter-country study visits;
ii) Mutual accountability of school/non-formal education centres and the community;	In-country pilot experiments for promoting community involvement in and, wherever possible, community control of primary schools;

iii)	Intensive innovations in curriculum development, skill training, school community relations and teacher preparation for tasks required to promote girls' education;	i) Support to Associated Centres and other institutions to undertake systematic studies of the problems and design innovations to deal with various issues;
		ii) Incorporation in teacher training syllabi of appropriate content (including practice teaching) for sensitising prospective teachers to special needs and problems of girls;
		iii) In-service training of teachers;
		iv) Seminars/workshops of non-governmental organizations for exchange of information and experiences;
iv)	More professionally equipped resource centres;	i) Support to teacher education institutions for strengthening their effort to promote girls' education in the form of adequately equipped library resources, in-service training arrangements, provision of extension services to girls' schools etc.;
		ii) Attachment of personnel to Associated Centres of different countries;
v)	Availability of print and non-print materials of special relevance to girls' participation in primary education.	i) Support to national and sub-national institutions to develop prototypes of materials;

ii) National and sub-national workshops for material developers;

iii) Inter-country exchange of materials.

Monitoring and evaluation

1. NDG/Associated Centres to have a special 'cell' for monitoring the progress of girls' education;

2. Strengthening of the Ministries of Education and selected Associated Centres for speedy compilation and analysis of field data on girls' education;

3. Assessment of programmes and training activities;

4. Assessment of downward percolation of activities initiated with APEID collaboration.

b) Rural, remote and isolated areas

Rationale

The rural-urban disparity has been considerable in most of the member countries. Those in rural, remote and isolated areas have not found education within their reach for a variety of reasons. Inadequacy of infrastructural facilities has been one reason. Others, which are probably more effective and act as a greater deterrent include : economic constraints, indifferent attitudes, lack of appreciation of the utility of education as perceived by the community, social and cultural factors and others. Countries which have a predominantly agriculture-based economy and where the rural population is much larger than the urban population, face these problems in much greater magnitude. Efforts in UPE would be only marginally successful, if the needs of these groups are not squarely met. An understanding of their educational needs, the factors which hamper their access and participation in education and the relating of curricula to community needs and productive skills could contribute towards bringing these groups within the fold of UPE. These and other measures require to be identified through in-depth studies of specific areas.

Current status

The national efforts to establish adequately equipped schools in rural areas have been undertaken. The curricula have

been revised and skill training components built into them. It has also been emphasized that the expertise, available in the communities in the form of progressive farmers and artisans and other professionals, should be utilized to impart skill training and environmental orientation to primary education. Some countries have linked curricula to community needs as well. The APEID programmes have contributed in these efforts and several countries have utilized the experiences of others. Much more, however, needs to be done.

The experience available from the programmes and activities should provide enough experience to Member States to launch massive programmes at promoting education in rural and isolated areas. It can be hoped that the rural-urban disparity in educational provisions and people availing of them will be reduced. The activities will also strengthen the motivation of communities to educate themselves.

Objectives

Long-term

1. Equality of educational opportunity in terms of access, quality and achievements;

2. Development of human resources equipped to participate in and contribute to scientific and technological progress;

3. Development of ethics, values and morals acceptable to the society.

Immediate

1. to promote access to education at the primary stage through formal and non-formal systems;

2. to develop and strengthen alternative systems of education, such as multigrade teaching, for providing education of comparable quality;

3. to improve the quality of teaching;

4. to initiate efforts to transform the management and administration of education systems, with greater decentralization and community involvement.

Expected outcomes

1. Greater and wider awareness in communities/countries of the need to educate children;

2. Increased emphasis on education of children of rural, remote and isolated areas in national plans of universal primary education;

3. Enhanced mutually beneficial school and community relations (schools to provide relevant education and the community to become fully involved in their upkeep and functioning);

4. Enhanced competence of teachers to perform innovative roles in and outside classrooms;

5. More voluntary actions;

6. Findings from study and research projects at national and sub-national levels;

7. Increased inter-sector strategies and co-operation in educational process;

8. Effective utilization of local resources, including the use of available expertise in the total process of education;

9. Curricular and other materials of special relevance to rural/remote areas.

Activities

Expected outcomes	Activities
i) Greater and wider awareness in communities countries of the need for educating children;	i) Country studies for determining the current status of education in rural communities and isolated areas and of the efforts to promote childrens' participation in primary schooling;
ii) Increased emphasis an education of children of rural and remote areas in national plans;	ii) In-country and inter-country exchange of information and experience through publications, meetings of experts and study visits;

iii) Enhanced mutually beneficial school-community relationships;	i)	In-depth studies of community-school relationships;
	ii)	In-country and inter-country exchange and sharing of experiences of the efforts to promote school-community relationships and involvement of community in the management of primary schools;
	iii)	Joint innovative projects on community involvement in management of primary schools;
iv) Enhanced competence of teachers to perform innovative roles in and outside classrooms;	i)	National level study group meeting to identify the content and strategies for teacher training;
	ii)	Sub-national workshops for in-service training of teachers;
v) More voluntary actions;		Seminars/workshops of non-governmental organizations for exchange of ideas and experiences;
vi) Findings from study and research projects at national and sub-national levels;	i)	Support for research and in-depth studies by institutions and individuals;
	ii)	Dissemination of information among educational policy makers and administrators;
	iii)	Inter-country dissemination of information;

vii)	Inter-sectoral strategies and cooperation;	Launching of an experimental project in a compact area with a view to developing a comprehensive programme of action with inter-sectoral and inter-agency collaboration;
viii)	Effective utilization of locally available resources and expertise;	
ix)	Development of curricular and other materials of special relevance to rural/remote areas.	Setting up of panels for curricular development and materials preparation.

Monitoring and evaluation

1. Periodic assessment of the rates of enrolment, retention and achievement at decentralized level;

2. Qualitative assessment of community involvement and interest, to be conducted by Associated Centres/NDG;

3. Assessment of programme outcomes and the impact of training activities, including its multiplier effect at different levels;

4. Impact on national-level activities in terms of training, materials development and inter-sectoral co-operation;

5. Pre- and post-evaluation of the achievements in experimental projects in compact areas.

c) Urban slums

Rationale

For want to adequate earning opportunities, people from rural areas have migrated to large cities, hoping to find employment. The people are mostly engaged in manual occupations in factories and at the harbours. They group together and occupy the limited vacant land near their working places for housing. The migration from rural areas becomes a continuous process. The places where they live are crowded, unorganized, with few facilities and unhealthy.

Many problems have emerged not only affecting them personally, especially their quality of life, but also the

community that they live in. Many of them have not found jobs or engage in jobs that could earn them the incomes that they desire. Frustration caused by such situations leads some to a life of crime and anti-social behaviour. Children and young people in such slum areas are adversely affected in such situations. The educational facilities for them are not adequate. Since they have to supplement family incomes, they either do not enrol in, or dropout of schools without completing the first level of education.

Status of the problem/programme

In the past, some effort has been made in various countries to provide appropriate and quality primary education for children of the slum areas. The efforts include organization of part-time non-formal education classes for them. The rate of success has varied. The number of non-enrolled children of slum areas continues to be large. Unless the educational needs of this group are met, the goal of universal primary education will not be met, since a sizeable segment of the population would be denied access to primary schooling.

Objectives

Long-term

The long-term objective is to promote an equitable access to quality primary education for children in urban slums so that they will be able to improve their quality of life, and take part and contribute to the development of their communities.

Immediate

1. To increase awareness in the community about the services provided by government and non-government agencies;

2. To increase access of slum children to primary education;

3. To ensure enrolment, retention in and completion of compulsory education for children in slum areas;

4. To address the social behaviour of young children of slums, especially those which lead to serious problems for the society such as drug addiction, prostitution, petty crime, etc.;

5. To develop an education integrated with other reinforcing and supporting services.

Expected outcomes (which correspond to the immediate objectives)

1. Increased awareness in communities of the available service;

2. Increased access and participation in education of children;

3. Reduction in the incidence of deviant social behaviour through curriculum reformulation, materials development and community action;

4. Packages of print and non-print materials for use of teachers, children and parents dealing with deviant behaviour and its consequences;

5. Findings from the experimental project, particularly in relation to most productive strategies.

Activities

The activities which will assist in realizing the above outcomes are indicated below:

Expected outcomes	Activities
i) Increased awareness in the communities of the services that have been created with a view to motivating them or their utilization;	i) Mobilization of voluntary effort; ii) Generation of community awareness through campaigns, close collaboration with community leaders and by using mass media of communication;
ii) To increase the access of children on the basis of an intensive surveys of needs;	i) Organization of part-time and non-formal education classes at a time convenient to children and their parents;
iii) To ensure enrolment in and retention in and completion of primary education of children of slums;	ii) Design of curriculum which relates education intimately to their special situations and needs;

	iii) Provision of a package of reinforcing and mutually supportive services such as incentives, health check-up and referral, etc.;
iv) To address the behavioural deviations of children of slum areas;	i) Building into the curriculum information on the consequences of such behavioural deviations as drug addition, crime, child prostitution, etc.;
	ii) Development and dissemination of print and non-print materials for use of teachers, children and parents;
	iii) Strengthening of linkage between the school and the community, by involving the local community with the programmes of schools;
v) To develop an integrated package of mutually supportive and reinforcing strategies and programmes.	A joint innovative project involving:
	i) Constitution of an expert group under the auspices of APEID to design strategies for the education of slum children, with emphasis an integration of education with the programmes of other development agencies;
	ii) Constitution of a national study group for working out the implication of the strategy in respect of specific slum areas;

iii) Experimental try-out of the approach in selected slum areas;

iv) Evaluation of the experience;

v) In-country and inter-country dissemination of findings;

vi) Inter-country study visits to project sites.

Monitoring and evaluation

A group of experts comprising the representatives of various organizations should be constituted to continuously monitor the implementation of various activities. Of particular importance would be the implementation of the experimental project, the monitoring of which should be a special responsibility of the group.

As regards evaluation, the key indicator for judging the success of various activities will be a decrease in the number of children in the slum areas who are deprived of quality education and in the incidence of deviant behaviour on the part of children. It will be relatively easy to develop quantitative indicators such as

- Participation rates (access, retention and achievement);

- Number of children involved in deviant behaviour.

The impact of the specific intervention strategy proposed above viz. that of implementing in a selected slum area a package of services through collaborative action among various departments can be evaluated by comparing the findings of pre-intervention survey with those obtained from post-intervention evaluation.

d) Special groups (minority groups, nomadic, migratory and territorial based groups)

Rationale

In all the countries of the Asia and Pacific region, primary education is considered the basic right of each

individual child. It is seen as the minimum essential prerequisite for enhancing an individual's participation in and contribution to development. Studies have consistently shown that there is a significantly positive correlation between the level of primary education and development, especially in terms of productivity, increased awareness and participation in socially and economically useful activities.

During the last two decades, the countries in the Asia and Pacific region have made a significant progress in providing primary education. There still remain considerably large and significant proportions of primary school-age children who have not been able to avail of the educational opportunities. They belong primarily to disadvantaged population groups such as the ethnic, cultural and linguistic minority groups, nomadic and migratory people and tribal and territorial based groups. The lack of full participation in education on their part is because of their unique socio-cultural and economic circumstances. Also, there are situations where appropriate educational facilities are not available to them.

The goal of universal primary education cannot be fully realized in the Asia and Pacific region unless special efforts are made to provide appropriate provisions of universal primary education for the disadvantaged and special population groups and to encourage their participation in the respective Member States where such population groups exist in significant numbers.

Status of the problem/programme

A significant number of socially disadvantaged, ethnic minorities and nomadic and migratory population groups exist in various countries of the Asia and Pacific region. These include, in particular, the scheduled castes, those who are regularly or periodically on the move, cultural and ethnic minorities and tribal populations who have their distinct identity in terms of social organization, traditions and values, and economic patterns of living. They often live in isolated areas with poor means of communication.

It is reported that due to cultural, social and linguistic factors unique to such population groups, large proportions of children of primary school age from these communities have not benefited from primary education. Such population groups exist in significant numbers in many countries of the region. To promote and improve participation in primary education for such population groups, it would be necessary to develop educational programmes which reflect and meet their educational needs.

Objectives

Long-term

The primary objective is to promote primary education among the disadvantaged groups so that universal primary education is attained. This can be done by taking into consideration for planning and programming purposes the special contexts and needs of minorities, nomadic and migratory people, tribal population, socially disadvantaged and territorial based groups.

Immediate

1. To promote country-specific in-depth assessment and analysis of educational needs of special population groups with a view to designing and developing special education programmes for them;

2. To promote country-specific preparation and testing of curricular, teaching-learning materials, and training schemes for teachers which take into account the contexts and educational needs of special population groups;

3. To promote teaching and development of textual and other educational materials in local language/mother tongue and effective forms and methods of multi-grade teaching; and

4. To promote networking and cooperation of primary schools serving special population groups with particular emphasis on in-service training of teachers, parent-teacher, parent-community cooperation and exchange of experiences and information.

Expected outcomes

1. Country specific and special group referenced curricular textual and teaching/learning materials prepared on the basis of educational needs and contexts of special population groups;

2. Country specific and special group referenced training programmes for teacher trainers;

3. Information and data concerning country specific programmes focused on the educational needs and contexts of special population groups.

Activities

Nature/scope

1. Country-specific and special group referenced assessment of educational needs, programme and materials development;

2. Development of country-specific special group referenced curriculum;

3. National and regional review and sharing of experiences regarding educational programmes designed to meet the educational needs of special population groups;

4. In-country training for teacher trainers and teachers;

5. Regional/sub-regional training for trainers and material development specialists.

Modalities

1. Joint Innovative Project focused on the improvement of primary education for special groups;

2. Technical Working Group/Specialist Review Meetings;

3. Inter-country exchange of experiences and of specialists/resource persons;

4. Regional and sub-regional, national and sub-national training programmes;

5. Attachments/internships.

Monitoring and evaluation

The programmes and activities proposed here should be planned, implemented and monitored in close collaboration with the National Development Groups (NDGs),the Associated Centres (ACs)and the Asian Centre of Educational Innovation for Development (ACEID). The following broad criteria should help in determining the quality and impact of project implementation.

Criteria for assessment of performance

Completion of main tasks;

Participants/benificiaries;

Effectiveness of the mode of implementation;

Quality of output.

Indicators of programme effect and impact

Follow-up actions and linkages with overall policies and programmes for education of special groups;

Participation, retention and completion rates;

Qualitative changes in teaching and learning of pupils and teachers.

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Action Area: Disabled Groups

Rationale

Description and analysis of the development problem.

Education has been recognized as being a fundamental right of an individual. It is a critical means for development. It is a powerful element in obtaining social justice. Unless the disabled are provided with educational opportunities, there will always be a significant shortfall in achieving universalization of the first level of education.

Probable consequences if the problem persists.

In countries that have reached high levels of enrolment in primary education, the educational needs of unrecognized numbers of the disabled are often either not adequately met or they are put into the school system, without any consideration of their special needs and the infrastructural, training and other prerequisites for their mainstreaming. There are important pragmatic arguments for the provision of education for the disabled.

Status of the problem/programme

Current

Except for a few countries, arrangements for providing first level education to the disabled are almost non-existent. Among others, the main reasons for the inadequate provision of educational programmes seem to be the lack of resources required to provide special facilities for the disabled who cannot be educated in the normal classroom and the lack of trained personnel capable of dealing with the problems faced by children suffering from different disabilities.

Status expected at the end of APEID's fifth programming cycle.

The obvious need is to establish suitable educational programmes for a large number of the disabled. This can be done by augmenting the supply of trained manpower; the preparation of materials in suitable formats; the approach of integrating the disabled into normal classroom/school settings, wherever possible.

For the education of the disabled generally, there is need for support from the parents of the disabled and the community, and for a co-ordinated effort by different agencies: education, health, social welfare, etc.

The categories of the disabled included are visually handicapped, orthopedically handicapped, mentally handicapped, hearing impaired and speech impaired.

The implementation of the activities is likely to assist in developing appropriate approaches to the education of the disabled, particularly those who can be educated in normal classroom setting.

Objectives

Long-term

Continue and intensify efforts to achieve universalization of education of the disabled through integration into normal classroom/school settings, and special institutions and programmes for those whose disabilities are severe.

Immediate

The immediate objectives are to promote and strengthen mutual co-operation among Member States to:

a) create appropriate infrastructures for integrated and effective planning, management, research and development for the education of the disabled;

b) give special attention to augmenting the supply of trained manpower through in- and pre-service training of personnel.

c) create support among parents and collaboration among various non-governmental and other agencies;

d) promote research, exchange of experiences on education of the disabled through research studies, workshops, seminars and inter-country study visits;

e) prepare and disseminate teaching aids and materials;

f) create networks of institutions on special education for promoting exchanges of experience and specialists.

Expected outcomes

Outcomes corresponding to each immediate objective as outlined above can be expected. These will primarily be in terms of:

- Information about the current status of educational provision for the disabled;

- Research findings about the problems faced in integrating the disabled in "normal" school situations;

- Availability of trained personnel for educating the disabled;

- Increased community awareness of the need to educate the disabled, including parental support;

- Materials - print and non-print - for use of teachers and students;

- Regional and sub-regional networking arrangements.

Activities

1) National studies focused on the status of integration of the disabled into the mainstream of primary education and for developing action plans.

2) Cooperative research to identify the problems faced in integration for educational purposes of the disabled of various categories.

3) Regional and sub-regional workshops for the critical review and examination of national studies and for the exchange of experiences for the education of the disabled.

4) In-country study visits for exchange of experiences on education for the disabled.

5) Attachment of key personnel for training to Associated Centres specializing in the education of the disabled.

6) Regional/sub-regional and national training workshops for developing in-service/pre-service training programmes for teachers and materials development.

7) National and sub-national workshops for creating parental awareness and community support for education of the disabled.

8) National study groups for design and development of print and non-print materials for special categories of the disabled.

9) Setting up regional/sub-regional and inter-country networks for sharing information and experiences on education of the disabled.

Modalities

- Attachments for training

- Mobile training team on special education.

Monitoring and evaluation

1) Criteria for assessment of performance:

   - Activities completed

- Number of participants (personnel) and children who benefitted from the programmes

- Quality and relevance of outputs.

2) Indicators of programme effect and impact:

- Changes in practice in the integration of education for the disabled and special programme for them.

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Action Area: Innovative Responses to Learners' Needs in Primary Education

a) Learner-based approaches to primary education

Rationale

The present schooling paradigm is dominated by the concern of school systems to deliver a pre-determined educational programme often packaged to suit the administrators and teachers more than the learners. A change in that paradigm to one in which the learner's needs are paramount, including the recognition of his/her economic and cultural context, is likely to be more effective from the educational standpoint and less alienating for the learners.

If the present paradigm is not subjected to the innovation proposed, alienation, in the form of school drop-out or truancy, is likely to accelerate, leaving the expectation of UPE unaddressed and widening the gap between the haves and have-nots, as the likelihood of primary drop-outs ever proceeding to secondary education is very low.

Status

This activity sets squarely within the concerns of UPE and has not been particularly addressed in the fourth cycle programme, although there may be some minimal overlap with some of the teacher-based programmes of that cycle.

By the end of the fifth cycle, this activity is likely to have produced evidence for innovations based on learners' needs, which could properly be extended into the sixth cycle.

Objectives

The long-term objectives are:

(i) to make the goals of UPE realizable;

(ii) to provide evidence of the educational benefits (cognitive and affective) of a learners' needs-based approach;

(iii) to explore the possible extent and scope of innovations involving communities, families and peers in the learning process;

(iv) to reduce alienation among learners and, thus, expedite the achievement of national educational and economic goals.

The immediate objectives of the activity are:

1. to develop profiles of learners' needs taking into account the learners' immediate cognitive and affective status, and the economic and social mores of their context;

2. to forge learning partnerships between the school, the learners, and their parents and community;

3. to identify the supportive educational services needed for effective learner-oriented schooling, including the education of parents, the establishment of learning group networks to support self-learning processes and the encouragement of peer teaching as a contribution to continuous learning;

4. to develop teaching strategies able to recognize the learners' needs and to promote the learning context of the learners;

5. to test and apply the above innovations in several contexts in the region by way of pilot projects, with a view to providing more generalizable models for national implementation.

Expected outcomes (These correspond to the immediate objectives above)

1. Instruments which will provide administrators, principals and teachers with the capacity to identify the needs of learners from the learners' perspective;

2. Practical approaches for involving the learners' community in the process of primary education, particularly when its introduction appears to intrude on the normal life of the community;

3. Information with respect to the range of human, if not physical, resources available to the professional teacher in enhancing both his/her effect and the needs of the learners;

4. A compilation of strategies and techniques for teachers to enable them better to promote learning (manuals and guidelines);

5. A primary schooling system able to acknowledge learners' needs, and so profit the national investment in education.

Activities

1. The organization by the ACEID of an Expert Planning Meeting to determine the final design, implementation process and management of the project;

2. The selection of country and/or destricts to participate in the project and their meeting for briefing purposes;

3. The identification of mobile training teams with expertise in the innovative management of learners' needs for training trainers/principals/teachers of the project schools;

4. The preparation of resource materials for the project;

5. Occasional meetings of work-force participants to exchange information and for formative assessment purposes;

6. The use of internships as a modality for dissemination of information and training;

7. A summative evaluation meeting which will also identify possible future national directions for the project.

Monitoring and evaluation

Formative and summative evaluations are required as suggested in the implementation process to determine the intended/unintended outcomes/impact of the project. The Expert Planning Meeting should determine the modalities to be adopted, noting the need for an independent evaluator to be involved.

b) Innovations for qualitative improvement in primary education

Rationale

A number of problem areas have been identified as affecting the development of universal primary education which can be addressed principally, albeit not entirely, by innovative programmes. These include:

(i) the drop-out rate after one year of primary schooling (the highest level of drop-out of all primary schooling) which suggests this matter be specifically addressed;

(ii) the lack of creative learning and teaching techniques in use in primary classes;

(iii) the breakdown of schooling into artificial subjects and its concentration on cognitive outcomes to the detriment of the development of the whole child;

(iv) the continued lack of educational materials, including basic literacy materials,for considerable number of schools/teachers;

v) the orientation of teacher preparation (pre-service and in-service) to streamed class-teaching, where multilevel teaching expertise is required.

The failure to address these qualitative issues in the provision of primary education will continue to inhibit, if not thwart, the goals of UPE. What does it count quantitatively were those goals realized but in reality high drop-out rates were not corrected or the quality of learning was found to be minimal?

Status

1. While, in generic terms, several of the issues which are the subject of this proposal are to be found in previous cycle proposals, the approach to be adopted in this project is being driven by innovative practices.

2. By the end of the fifth cycle, this project can be expected to have contributed signficantly to the enhancement of the quality primary education.

Objectives

1. The long-term objectives of this project, apart from improving the overall quality of primary education, include:

   (i) Diminishing the drop-out rate at year 1 of schooling, and, through the multiplier effect, later years, to a minimum;

   (ii) Providing a primary school situation characterized by creative teaching and learning techniques;

   (iii) Designing of primary education which addresses the child as a whole and in context;

   (iv) Providing adequate teaching and material resources, especially in the field of literacy;

   (v) Providing a teaching force competent in multigrade/level teaching strategies, which is the strategy most likely necessary for the achievement of UPE.

2. The short-term objectives of this project are:

   (i) Developing models of 'what works' in primary teaching, more adequately to resource teaching for year 1 with a view to enhancing retention rates and reducing pupil/parent alienation;

   (ii) Developing techniques for creative teaching and learning, for application and dissemination;

   (iii) Designing and trial of holistic models for teaching, such that curriculum is more child-oriented and less subject-bound;

   (iv) Preparation of a range of educational materials, including those for literacy development, for application and dissemination;

   (v) Devising multigrade teaching programmes for in-service teachers.

Outcomes

(i) Learning resources (guidebooks and manuals in particular) in support of high quality year 1 primary education teaching;

(ii) Availability of a range of techniques to enable teachers to remain innovative in their techniques in classroom teaching, to the benefit of learners;

(iii) Availability of a range of models which have been trialled and evaluated for curriculum reform, particularly with regard to integrated teaching;

(iv) Availability of trained personnel;

(v) A battery of educational materials, proven in terms of quality, for dissemination both nationally and within the region;

(vi) A teaching force more oriented to the demands of advancing UPE in being multigrade/multilevel competent, with accompanying in-service strategies.

Activities

1. The organization of an Expert Planning Meeting with appropriate sub-groupings to determine the final design, implementation process and management of the project;

2. The selection of contexts for the application of the project, including working groups for the development of models and materials, for each of the areas of concern;

3. Occasional meetings of the work-force participants to exchange information and for formative assessment purposes;

4. The preparation of manuals and guidelines for publication and dissemination;

5. Training of personnel through workshops organized at national and sub-national levels;

6. A summative evaluation meeting to report on the project and identify possible future directions for national and regional application.

Monitoring and evaluation

Formative and summative evaluations are required as indicated above to determine the intended/unintended outcomes/impact of the project. The Expert Planning Meeting should determine the evaluation modalities to be adopted, noting the need for an independent evaluator to be involved.

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Programme area: Co-operative Programmes for Supporting Promotion of Universal Primary Education

The countries have in their policies set themselves two-fold targets for meeting the learning needs of all children. One target is to provide universal access to learning opportunities to all children, which calls for a comprehensive assessment of needs and development of plans of action (from local to national levels). Closely linked to this target is the second one, namely, the adoption of policies and programmes for improving the quality and relevance of basic education services. While the two-fold targets must be met through national action within each country, there are certin forms of inter-country cooperative action which can provide indispensably supportive action to all other programmes of UPE. The following three key areas are identified in this supportive role:

1. Co-operative action-oriented research on problems of UPE;

2. Co-operative reviews of UPE national plans and programmes;

3. Information exchange networks.

These three programme areas are presented in the following sections in terms of the regional programme activities involved.

a) Co-operative action-oriented research on UPE problems.
(N.B.: Action-oriented research includes school-based or learning group based, experimentations and innovations).

Rationale

Many of the problems of universalizing primary education have a persistent character because they have not been subjected to research-driven action; for example, factors involved in low

enrolments, dropping out, low achievement levels etc. Furthermore, school-based or learner-group-based innovations, have generally failed to receive the attention that they merit for their potential for changing unproductive instructional practices.

This programme action is aimed at mobilizing educational research and development capacities.

Status of the problems/programmes - regional perspective

Of the many problems of UPE, there are a few which are specific to the context of some countries. There are, however, several problems which, though persistent in a few countries, have actually been resolved in some other countries in the region. The range of experiences and expertise that can be shared is quite significant. Furthermore, almost all countries in the region have in recent years established educational research and development institutions/organizations and their capacities must be mobilized and strengthened by engagement in research action for UPE.

Objectives

Long-term

- To contribute to the building up of national capacities for research and for strengthening the knowledge base for the development of education;

- To help in creating the cadres of educational R & D specialists and planners with the capability to design and implement programmes in the context of the national conditions.

Immediate

- To carry out field-based research on the problems directly related to the objectives of UPE and test solutions;

- By research procedures, to test the effectiveness of school-based innovations;

- To develop in the context of the national conditions suitable standards of learning achievement at the primary level and assess the improvements periodically.

Expected outcomes

- Research-based studies on problems relating to UPE;
- Guidance materials developed for the use of teachers etc. on the basis of the research and experimental studies;
- Achievement standard specifications;
- On the job-training of educational R & D personnel.

Activities

1. Co-operating educational research institution in the countries (almost all of them are Associated Centres within the framework of APEID which will be networked for joint planning and action (consortium).
2. The Consortium formed under 1 above will meet to identify the projects/studies directly related to the problem of UPE, which will be carried out in the co-operating countries. The research studies/projects will be broadly of two kinds: (a) those to be undertaken by the institutions in their own context; (b) those which will follow a common design agreed to in the consortium.
3. Support will be provided for the studies/projects.
4. The outcomes/findings will be exchanged among the co-operating countries.
5. Inter-country study visits will be organized in order to provide training experiences.

Methods of action

- Joint Innovative Project modalities in design and development;
- Inter-country exchange for training;
- Dissemination of research documentation and information.

Monitoring and evaluation

- Performance to be assessed by the quality and relevance of educational R & D studies/projects;

- Impact to be judged by changes in practice consequent on research findings.

b) Co-operative review of UPE national plans and programmes

Rationale

Planning towards UPE has been an established feature in the Asian region since the early 1960s when the countries adopted a regional action plan popularly known as the Karachi Plan.

Very recently the spirit of the World Conference on Education for All, held in 1990 at Jomtien, Thailand, has animated new efforts in the countries of a greater range and depth which find expression in national plans of action to meet basic learning needs of all children. In addition to overall action plans, there are also, in several countries, comprehensive programmes centred on leading problems, such as quality improvement, equity, etc. Such plans and programmes are not only in low enrolment countries but also in others which are now extending the duration of basic education.

Status of the programme - regional perspective

This programme action aims at cooperative reviews of national plans and programmes. This not only makes available to a country the insights and experiences of other countries forming the reviewing team, but also helps the latter in their own plans and programmes. Apart from the UPE plans, the review may also cover other related themes which the host country includes for reviewing exchange, notably moral and values education.

Objectives

Long-term

- to contribute to the strengthening of national capacities for the planning and evaluation of universal, learning-needs based primary education for all children.

Immediate

- by an inter-country team arrangement, to review the action plans and programmes for UPE in countries and at the same time exchange experiences among the countries in multi-level, multi-sectoral planning and programming.

Expected outcomes

1. A series of country plans for UPE analysed and reviewed with up--to-date data information;

2. About 35-40 higher-level educators and planners sharing and receiving significant planning and programming experiences in UPE, during period 1992-1996.

Activities

The countries' plans and programme of UPE will be analytically reviewed and appraised by teams of planning specialists/educators drawn from other countries in the region. Each team will have about three or four members and will be composed in consultation with the country whose plans are to be appraised. The team will visit the country and hold discussions and record its findings. Two to three such reviews will be conducted each year, completing the first round of reviews in the 1992-1996 period.

Methods of action

1. Prior development of UPE plans and programmes by the countries;

2. Inter-country co-operative team action for review and appraisal;

3. Monitoring and evaluation.

   Performance indicators:

   i) Number of reviews accomplished;

   ii) Number of high-level planning personnel involved.

c) Information exchange networks for UPE

Rationale

Information and data are essential for the programming of UPE, its implementation, monitoring of activities and feedback from evaluation of impact of various programmes. Information is generally of two kinds: quantitative needed for sound planning and management, and information which indicates the quality of change. Regional co-operation has an important contribution to make in information collection and dissemination in both forms.

Status of the programme - regional perspective

A considerable amount of research-based information has been built up in many educational research and development institutions in the region which have been Associated Centres of APEID. Some of these institutions have also undertaken dissemination through their newsletters or special publications. The Asian Centre of Educational Innovation for Development (ACEID) has, through the distribution of its publications, newsletter and occasional papers, proved to be a good source for information of innovations and their applications for educational development.

As regards statistical data collection and use, Unesco PROAP has been active in helping the member countries in developing their management information systems. These measures need to be further strengthened particularly with reference to UPE.

The priority needs, broadly, are (i) to expand and strengthen the regional network of institutions and their information output and dissemination; (ii) to ensure that both quantitative and qualitative information is accessible to the users in the countries in suitable mode and form.

Objectives

Long-term

- To establish a co-operative mechanism for sharing and of information relevant to UPE among the countries of the region;

- To strengthen the capacities of the countries to collect and process and disseminate such information so as to provide a sound basis for their plans and programmes.

Immediate

- To develop the network for information exchange among the countries;

- To help in enhancing user accessibility.

Expected outcomes

1) Enhanced capability of Associated Centres and other institutions for generation and dissemination of information;

2) Relevant research findings, the lessons of experiments and innovation and findings of surveys etc. for distribution among educational practitioners (e.g. teachers, supervisors, etc.);

3) Statistical and other information relating to UPE.

Activities

1) Assist Associated Centres to generate, process and disseminate educational information;

2) Develop clearing house capabilities in key Associated Centres and also in ACEID for collecting, processing and disseminating innovation information;

3) Every substantial project which leads to some findings or tested lessons of insight and experience should be supported to prepare abstracts (in clear non-technical, non-jargon language) for dissemination to teachers and other practitioners. The work done in this regard by the multigrade teaching project in the fourth cycle is a good example of what needs to be done;

4) ACEID and key Associated Centres will develop "digests/abstracts" of selected major reports, plans, R&D reports etc. Sub-regional offices will also assist in this activity;

5) ACEID's newsletter to develop in appropriate form a sharper focus on UPE;

6) ACEID undertakes as a project of priority a well documented write-up on data available in respect of UPE in Asia and the Pacific region. This should be planned and prepared as a major publication and should analyse the progress and trends, the significant break-throughs or shortfalls and the innovation programmes underway in the countries. The first report on UPE may be planned to appear in 1992 (if possible for the Ministers' Conference) and thereafter every two years.

Methods of action

- Networking arrangements for "key" Associated Centres;
- Inter-country visits by personnel responsible for information clearing house/publication in the countries;
- National workshops for documentation personnel including school librarians;
- Information technology to be utilized;
- Encouraging teachers' colleges, Ministries of Education, etc. to set apart library space for the materials put out from the network;
- Use of print and other media in the countries to publicise network materials.

Monitoring and evaluation

Performance indicators:

- Number of "key" Associated Centres actively engaged and output of the network;
- Relevance and quality of "user" materials and the extent of their distribution;
- "Episodic" evidence of the use by planners, teachers, librarians.

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Action Area: Regional Co-operative Mechanism for the Promotion and Support of UPE

1. The regional action for the promotion of UPE is a co-operative endeavour of the countries of the region based on their wish to help and share with each other in a spirit of partnership, within the framework of the regional programme of education for all.

2. With the object of facilitating inter-country collaboration and consultation including overall review and evaluation of the progress of UPE, an Experts Group on UPE will be formed composed of (a) persons of knowledge and expertise in primary education (formal as well as non-formal) from the concerned agencies of the participating governments with responsibility for the policies, planning and implementation of UPE; (b) Associated Centres of APEID (including any consortia that may be formal) engaged in UPE specially in areas such as curriculum and instruction, educational research and development, training of educational personnel, instructional materials including technologies, and community development; (c) a limited number of individuals in personnel capacity for the reason of their special knowledge and experience relative to the problems of primary education.

3. It will be open to the above Regional Experts Group (REG) to establish panels or sub-groups in specific areas which call for special measures and action, for example, girls' education.

4. The REG will also facilitate linkage with national projects in UPE, notably those funded by external sources.

5. The knowledge and skills of REG members will be available on request for providing technical assistance on institutional or individual basis to any participating country.

6. Unesco/PROAP and within ACEID will continue to be the facilitator, and energising agent for UPE.

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MAJOR PROGRAMME AREA: SCIENCE, MATHEMATICS AND TECHNOLOGY EDUCATION (INCLUDING SCIENCE FOR ALL)

Introduction

School curricula, materials and teacher competencies have not been able to keep pace with the ever expanding knowledge and advances in science and technology. For example, some of the materials currently used in some countries were designed for the state of science knowledge which prevailed decades ago.

While it is not entirely possible for the curricula and teaching materials to always keep abreast of the developments in science and technology, there is a need nevertheless to provide mechanisms by which teachers and learners can develop process skills which will help them to continue learning so that they can keep pace with the knowledge and information explosion which has taken place in the last few years, and which in all certainty will continue to increase in the 21st century.

To date teachers tend to emphasize memorization and recall of knowledge. What is needed in science and technology education are process skills for acquiring knowledge i.e., skills in observation, problem recognition, problem solving, inquiry, and decision making. Before they can develop these skills in their students, teachers themselves must possess the skills. This implies a need for training which will update and upgrade teacher competencies, training that goes hand in hand with or related to preparing and using innovative materials adapted to local classrooms and varying learning situations.

Correspondingly, the curricula for science, mathematics and technology education should be improved to reflect the importance to be given to learners' acquisition of process skills rather than mere recall of facts and information. The shifts in curricular emphasis imply corresponding reform in the assessment of learning achievement.

The concern for teaching learners how to process and use knowledge also has implications for information processing technology. This technology is by no means limited to computers because in the expanding world of knowledge there is a need to select qualitatively many available knowledge-processing technologies spanning the traditional and the modern.

The phenomenal increase in knowledge and rapid advances in science and technology - and the gaps which these have created

between what is currently existing and what is desired or perceived to be needed in terms of teacher and learner skills - point out a serious need for action-oriented research in science, mathematics and technology education. The dearth of research in the region on teaching/learning of science and mathematics, on factors influencing achievement in these subjects at different school levels, in either formal or non-formal education, have resulted in decisions being made on impressions rather than on the basis of empirical and research evidence.

In view of the above situations, the Programme Area on Science, Mathematics and Technology Education has been conceptualized to include the following action areas:

1) Improvement of teacher training (with focus on development of curricula, materials, methods and evaluation) for pre-service and in-service and covering primary and secondary education;

2) Co-operative programmes for developing innovative model curricula (with focus on process skills, creativity, environment, applications; morals, ethics and values; future science content) for primary, secondary and out-of-school learners;

3) Information processing technology, including computer education;

4) Co-operative action-oriented research on science and technology education.

The four action areas are described in detail in the following sections.

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Action Area: Improvement of Teacher Training

Rationale

Due to the ever expanding knowledge and continuous advances in science and technology, the emphasis in teaching science, mathematics and technology is shifting from information giving to information processing. The teachers' role is also changing, from provider of knowledge to a facilitator of learning.

Teachers find it difficult to cope with the on-going shift and changing roles. This is one reason why there is complaint about the shortage of adequately trained teachers, especially in science, mathematics and technology, at primary and secondary levels. This has affected the quality of science education in the region.

Teachers have to be encouraged to use innovative teaching techniques to meet the challenge of the time. There is also a need to examine and improve the pre-service curriculum so that the new teachers will be exposed to the current thinking in the teaching of science, mathematics and technology. Training of teachers is therefore, a very important component in the improvement of Science, Mathematics and Technology Education (SMATE).

This action area is focused on the teaching of trainers. The trainers are those who will train the classroom teachers to cope with the changing trends in science, mathematics and technology teaching, and the changing roles of the science, mathematics and technology teachers.

Status of the problem/programme

Current status

The pre-service training has not emphasized the new competencies and skills needed. These are on developing process skills, acquisition of desirable attitudes, values, ethics and social responsibility and environmental awareness. Instead there is more emphasis on rote learning.

Hence, there is a need to update and upgrade the competences and skills of in-service teachers, in order for them to cope with the on-going changes, especially in their ability to modify and adapt their teaching skills to the new curriculum materials, developed to suit local conditions and specific needs in their classroom situation.

Expected status

At the end of the fifth programming cycle of APEID, it is expected that there will be an increase in the number and quality of teacher trainers who will be able to train classroom teachers to impart process skills, morals, ethics and values including environmental awareness and new and future science content, instead of resorting to, as at present, information loaded teaching.

Objectives

Long-term

a) To develop self-reliance in the field of science, mathematics, and technology teaching;

b) To provide creative teachers;

c) To inculcate a spirit of continuing innovation in the teaching of sciences, mathematics and technology;

d) To produce teachers capable of problem solving.

Immediate

a) To identify national needs and common sub-regional and regional needs in science, mathematics and technology teaching;

b) To create an effective number of key trainers with innovative thinking;

c) To improve pre-service and in-service training in order to produce teachers with innovative ideas;

d) To improve curricula of teacher training in content and pedagogy;

e) To prepare training materials for in-service and pre-service teachers and personnel for out-of-school programmes.

Expected outcomes

The expected specific outcomes are as follows:

a) Report on regional and sub-regional common problems and issues of teacher education;

b) Training materials appropriate to national needs and identification of needs applicable to the sub-regional and regional situations;

c) A core of key personnel who will train trainers and trainees who will train the classroom teachers.

Activities

a) Regional meeting of experts.

The meeting participated by curriculum developers and teacher trainers at policy level, will focus on:

i) identifying common problems and issues on training of teachers and deciding on a basic framework for sub-regional clustering of the countries;

ii) setting priorities and developing criteria for undertaking a survey of existing institutions in the member countries, in order to identify national needs and common sub-regional and regional needs;

iii) planning co-operative efforts including compilation of data and exemplars.

b) Sub-regional experts meeting.

The meeting participated by curriculum developers and teacher trainers at the implementers' level will focus on:

i) development of training materials for primary and secondary school teachers (pre-service and in-service training);

ii) development of training materials for implementing out-of-school activities;

iii) try-out at sub-regional level teacher training materials for adaptation and further try-out and modification at in-country levels.

c) National training workshop for teacher trainers.

i) to adapt the tried out materials, and modify the training materials to fit local situation (primary, secondary, out-of-school);

ii) to plan training programmes for classroom teachers based on the national try-out and modified activities.

Monitoring and evaluation

The suggested criteria for monitoring and evaluating are as follows:

i) achievement of objectives;

ii) number of key trainers trained;

iii) number and variety of training materials developed;

iv) usefulness of training materials;

v) relevance of training activities to local needs/situations;

vi) effectiveness of the strategies used in the training activities;

vii) attainment of positive attitudes towards continous curriculum and material development geared to teaching;

viii) improved pre-service/in-service education programmes.

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Action Area: Co-operative Programme for Developing Curriculum Models and Materials (with focus on process skills, creativity, environment, applications, morals, ethics and values; future science content) for Primary, Secondary and Out-of-School Learners

Rationale

There is an urgent need to adequately prepare the people of Asia and the Pacific countries to accommodate the rapid advances in science, mathematics and technology. The impact of these changes require constant curricular reforms so that learners are provided with relevant skills, new knowledge and desirable attitudes to cope with the changing socio-cultural, political and economic environment.

The curricula should provide many opportunities for developing process skills, especially skills of observation, problem-recognition, problem-solving, decision-making, generating

rational and critical thinking and developing creativity. It should also allow the learner to acquire, select, interpret and synthesize information, and acquire desirable attitudes, morals, ethics and values, and learn new content, e.g., biotechnology, polymer chemistry, lasers, microchips, microcomputers, space science, etc. in order for him to cope with the changes taking place.

Curricular reforms in the Asia and Pacific countries started about two decades ago. However, science, mathematics and technology education (SMATE) was given more emphasis when APEID launched the "Science for All" programme in 1983. This was reiterated in the World Conference on "Education for All", held in Jomtien, Thailand in March 1990. These programmes are directed at providing every member of the society with competence, knowledge and attitudes and skills appropriate to his immediate needs, in order to improve her/his quality of life by providing herself/himself and her/his family with adequate basic amenities, e.g. food, clothing, shelter, education etc. and to relate harmoniously to her/his environment.

These programmes have also served as the basis for initiating further innovative ideas for curricular and examination reforms at primary, secondary and out-of-school learners.

Status of the programme

Member countries in the region have been continuously revising and reviewing their curricula and have identified SMATE as one of the priority areas convergent with recommendations made by APEID. However, there has not been much emphasis on the development of process skills, acquisition of desirable attitudes and values, ethics and social responsibility and on the projecting of future content in a long-term perspective.

Objectives

Long-term

i) To assist the member countries to create and strengthen national capabilities in terms of personnel, techniques and management competence for development and use of innovations in SMATE, linked especially to the needs of the learners in order for them to contribute to national development;

ii) To promote application of SMATE to improve people's health, eradicate poverty, achieve social harmony, protect the environment and use the national resources to sustain future generation.

Immediate

i) To develop curricular models/materials (print/non-print, low-cost equipment etc.) with focus on developing process skills, acquiring desirable attitudes and values, ethics and social responsibility and analysis of new content areas in SMATE;

ii) To develop a strategy for simultaneous curricular and learner achievement evaluation.

Outcomes

i) Curriculum models/materials with focus on process skills, desirable attitudes and values, ethics and social responsibility and analysis of content for primary, secondary and out-of-school learners;

ii) Reports of the expert groups;

iii) Compendium of national strategies for implementing the newly designed curricula and materials and format for evaluating learners' achievement;

iv) Compendium of sub-regional strategies for implementation of newly designed curriculum and format for evaluating learners' achievement;

v) A regional source book of strategies/activities for implementing newly designed curriculum and format for evaluating learners' achievement.

The models will incorporate the different innovative strategies in evaluating student achievement.

Activities

1. Regional Planning Meeting of key science, methematics and technology education personnel responsible for curricular reforms in the area:

   (i) to identify problem areas related to curriculum and learner achievement evaluation in SMATE;

(ii) to set priorities and identify the criteria on the design, and development of the curriculum models;

(iii) to plan further follow-up actions in the sub-regional and national levels.

2. Sub-regional Workshop of science, mathematics technology educators/teachers with experience in curriculum development (based on clustering of Member States) for:

(i) designing and developing curriculum models/ materials;

(ii) planning actions for in-country implementation.

3. In-country national workshops of science, mathematics and technology teachers and curriculum developers with the following objectives:

(i) to adapt and try out the activities, produced in the sub-regional workshop, to suit the national needs;

(ii) to review and modify the activities as a result of the try-out;

(iii) to make recommendations directed to national authorities for adoption of the curricular reforms as well as to provide feed back to the sub-regional activities.

4. Sub-regional meeting of science, mathematics and technology educators with experience in curriculum development for:

(i) reviewing the progress of the implementation of the programme at the in-country levels;

(ii) adapting strategies common to the sub-region, based on the feedback from in-country activities.

5. Regional meeting of key science, mathematics and technology education personnel

(i) to review the progress on the implementation of the programme at the sub-regional levels;

(ii) to adopt the strategies common to the region, based on the sub-regional recommendations.

Monitoring and evaluation

Whenever necessary, detailed evaluation and monitoring procedures and tools will be designed for each specific activity (programming action) considering the following criteria:

- Purpose and type of evaluation;
- Timing and duration of evaluation;
- Role of action (applied) research in a programme;
- Selection and appointment of individuals/group to undertake evaluation;
- The processing and presentation of data for further action;
- Periodic monitoring time schedule.

For performance measurements the following will be considered:

- Quantity/quality input/output of activities;
- Capacity building of each programme or activity area;
- Observable outcomes which are purely as a result of APEID impact;
- Coverage of target population.

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Action Area: Use of Information Processing Technology including Computer Technology

Rationale

The growing disparities between developed and developing countries have become a matter of urgent concern in the developing countries. In the context of the explosion of information processing technologies (parallel with the information explosion), this concern has become especially serious. These technologies have exciting potentials for enhancing learning by pupils. While education programmes by themselves can do little about bridging the technogical gap, education can help in reducing it. This could be done by

mobilizing the strengths of the technologies for superior learning by pupils in the education system. Education would also contribute towards achieving the goals related to improving the quality of education, set by Member States in the region.

Since the introduction of electronic information processing technology into the education system is recognized as involving high costs, careful and strategic selection of the educational use of such technologies is imperative. Wasteful token actions, such as "electronic page turning", have to be avoided. The focus of use would need to be on those selected strengths of the technologies which would enhance substantially the quality of education in areas in which the usual educational environments in schools would not be able to provide for effectively.

In the use of computers, for example, this would involve the selection of strengths like the enormous capacity for data storage, and rapid processing and retrieval; flexibility for model or hypothesis making and testing; complex graphic display, as they may be mobilized for superior science, technology and mathematics learning.

The coverage would not be that of only the electronic technology alone, but of a range of information processing technologies including AV media such as charts, video, comics, radio, TV, as well as relevant traditional culture-based media which have information processing technologies such as puppetry, visual and auditory symbols, dances, rituals, to emphasize the variety of information processing technologies available, some thousands of years old.

The regional dimensions of the action will be predominently on appropriate software production, and on the design parameters for such production, so that concrete and effective regional sharing of experiences and transfer of "brain" technology would be facilitated, particularly in the case of LDCs, and a critical core of designers installed in countries for long-term innovative action in this area.

The "brain" technologies transfer would also make such a core of designers enhance their capacities for judging corresponding software imported to the country, thereby guarding against the danger of heavy foreign dependency and negative influences of those external inputs, including cultural pollution.

Status of the problem/programme

Across the region, while considerable interest has manifested about information processing technologies and some

actions initiated, clear design strategies for the corresponding education programmes are only at an investigatory stage. The current cycle of APEID-initiated preliminary work in this area needs to be further developed, to permit self-confidence and self-development by Member States, through a trained core group of designers in each country. Actions in this regard can be supported feasibly through inter-country co-operation.

At the end of APEID's fifth cycle, it is expected that each country would possess a core group of designers, and sets of tested software representing exemplars from sufficient aspects of the various strengths of the information processing technologies, to venture, on their own, to cover other aspects focused on superior learning of science, technology and mathematics, as well as into other learning areas.

Further, by the end of the fifth cycle, a beginning would have been made towards institutionalizing the design and development of such software, and of its use in the school system.

Objectives

Long-term

To develop the institutional capacity of Member States, to utilize a variety of information processing technologies including traditional culture-specific technologies, for superior science, technology and mathematics learning, as well as other learnings, based upon both indigenously generated software, and software from outside that have been selected through the use of systematic criteria.

Short-term

To develop a core set of designers and a sampling of tested software for the use of a variety of information processing technologies, including traditional culture-specific technologies, for superior science, technology and mathematics learnings, in selected content and process areas, reflecting the respective strengths of the technologies.

Expected outcomes

The expected specific outcomes are as follows:

- a core set of trained designers of software in the participating countries;

- an exemplar set of tested software using the unique strengths of the respective technologies for superior learning of science, mathematics and technology education (SMATE);

- a regional compendium of practical suggestions, with examples related to the designing of software for selected information processing technologies, including traditional culture-specific technologies;

- an annotated catalogue of relevant software available in the region.

Activities

The primary nature of the activities corresponds to the APEID function of inter-country co-operation solidly founded on country experiences. The scope of the activities confines itself to selected strengths of information processing technologies in the context of improving the quality of learning of science, technology and mathematics at the secondary level, through production-cum-training of a set of core specialists from interested countries, and the testing of the produced exemplar software. This software would cover the computer, video, radio, TV, print media, as well as selected and appropriate traditional and culture-specific information processing technologies.

The participating Member States would be encouraged to nominate an optimum set of specialists for the purpose, representing potentials for the highest multiplier effect in the countries, of the innovations developed in the Project. In this respect, options of choice of participants may include those from outside formal governmental structures, such as, for example, Science Teacher Associations.

The overall strategy in the activities follows the sequence:

Activity	Specific related outcomes:
1. Regional Technical Working Group Meeting for	(a) Country reports/studies/ surveys;
(i) review of work already done and the state of the art information, for preparation of frameworks for sub-regional and national activities and for evaluation of the impact of the project	(b) A regional resource book; (c) Frameworks for sub-regional production-cum-training; (d) Frameworks for national-level design/trial activities;

	(ii) Collation of tested materials	(e) Framework for monitoring and evaluating the implementation and impact of the Project.
2.	Sub-regional Workshops (Thematic grouping) for	(a) Reports of production-cum-training workshops held at the sub-regional level for elaborating framework;
	(i) software production and elaboration of the frameworks prepared at the regional meeting for application at the sub-regional level	(b) Framework elaborating the project monitoring and evaluation action;
	(ii) mid-term review of the progress	(c) A core of trained key personnel.
3.	Meeting of the national task force for	(a) Suitable software for national and sub-national use;
	Software production incorporating national cultural specific parameters.	(b) Report on field trials.
4.	Field trial of produced materials and their revision	Materials in final form.

As required, relevant resource flows will be channeled to the different activities, including technical assistance services; study visit/attachment services for exchange of experiences and specific training; and financial assistance. Mobile Training Teams in Educational Technology will also be an input to the Project as required.

Monitoring and evaluation

Both monitoring (via sub-regional thematic group/national level) and evaluation (regional/sub-regional thematic group/national) have been integrally built into the activities of the Project.

General criteria for evaluation are as follows:

a) Assessment of Project performance: availability of a core set of experts engaged in software production; availability of tested exemplar software; analytical qualitative statement of the operation of the Project through its respective levels of operation.

b) Assessment of Project impact: evidence of extending the production of software beyond the design frameworks of the sub-regional thematic group; actions for institutionalizing the innovative core group of experts as change agents; actions for incorporation of the innovations in the main-stream of education system.

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Action Area: Co-operative Action-oriented Research on Science, Mathematics and Technology Education

Rationale

Science, Mathematics and Technology Education (SMATE) has been given a lot of effort, attention and resources in countries of the Asia-Pacific region. Although progress has been achieved in terms of wider awareness and knowledge of science, there are still gaps in the available knowledge about science/mathematics teaching and learning as well as on factors affecting it. A review of the progress achieved in SMATE should be made to identify the deficiencies which need to be remedied and further work that needs to be done. It is felt that learning fundamental and basic process skills have not yet been adequately emphasized, and that morals, values and ethics have not been sufficiently dealt with in SMATE.

Currently, much of the thinking concerning teaching-learning in SMATE emphasizes the need to develop process skills. However, in actual classroom situations teachers still teach students to acquire knowledge and information. They generally reinforce only recall skills and the giving of right answers rather than higher order skills, like problem identification, critical thinking, inquiry and decision-making.

At the management level, decisions concerning SMATE are often made on impressionistic assessment of problem situations rather than on hard empirical evidence from research. With the amount of effort, time and resources given in support of SMATE, there is a need for research-based evidence for sound decision-making on problems involving this area.

Because the countries in the region are confronted with common and/or related problems in varying degrees with regard to SMATE, there is an urgent need for co-operative efforts at seeking solutions to such problems.

Status of the problem/programme

Unlike in the areas of teacher education and curriculum development, no state-of-the-art or state-of-the-practice study has been done on SMATE in the region. Some countries have done micro studies on teaching/learning of science and mathematics and on administration of science/mathematics programmes. However, these addressed problems on a piecemeal basis. It is expected that if co-operative effort is made to address problems and concerns commonly shared by countries, the research undertaken will be more relevant and useful to the teaching and learning of science and mathematics. Co-operative action-oriented research will result in baseline data/information resource files on current practices and innovations, which can be shared and used for problem-solving and sound decision-making in regard to SMATE.

It is anticipated that at the end of the APEID fifth programming cycle the adaptive development process will be practised in the Member States for the improvement of development programmes. This development process includes diagnostic exercises to identify what is to be developed, innovative measures to correct or solve the identified problems and needs, and implementation and monitoring of the innovative measures selected. It is also expected that the development of science, mathematics and technology education programmes will be truly responsive to Member States' needs and such programmes will bring about the qualities desired in learners.

Objectives

Long-term

The long-term objectives of the action area are:

a) To strengthen research capabilities of countries in the region;

b) To institutionalize research in SMATE in the participating countries;

c) To infuse the adaptive management model in solving problems in SMATE.

Expected outcomes

a) Findings from state-of-the-art studies on country experiences;

b) A listing and prioritization of problems, concerns and common needs in SMATE;

c) Workable research plans and designs;

d) Improved research capabilities and skills of SMATE personnel;

e) Country-adapted research designs;

f) Relevant research findings on teaching-learning of science, mathematics and technology by in-school and out-of-school learners;

g) Region-wide research networking arrangements;

h) Resource files comprising innovative practices in solving problems in science, mathematics and technology education;

i) Documents and reports on innovative programmes, adaptive management models, monitoring and evaluation, for disseminating to all Member States.

Immediate

The immediate objectives and corresponding activities to attain each are:

Objective	Activity
a) To collect information on the state-of-the-art of SMATE;	a) Regional-level expert group meeting i) to design a format for country studies; ii) for synthesis of country studies;
b) To identify and prioritize commonly shared problems and concerns which can be co-operatively studied;	b) i) Country studies through an identified institution; ii) Regional/sub-regional meeting of experts;
c) To plan and design cooperative research on commonly shared problems;	c) i) Regional/sub-regional meeting of expert groups to identify problems requiring cooperative research;

d) To adapt the design to conditions prevailing in each participating country;	d) National-level workshops;
e) To train SMATE personnel in research and adaptive management;	e) National level seminars/workshops;
f) To share research experiences, expertise and resources;	f) Inter-country exchange of information: study visits; mobile teams;
g) To disseminate research findings;	g) Sub-regional meetings;
h) To develop resource files comprising innovative practices appropriate to solve problems in SMATE.	h) Regional and national group meeting of experts.

Monitoring and evaluation

a) Criteria for assessment of performance:

- Willingness and enthusiasm of regional participants to conduct the research;
- Number and prioritization of research problems and issues identified;
- Workability of research plans and designs;
- Adaptability of designs to country situations;
- Appropriateness of selection/nomination of participants to sub-regional and national research training workshops;
- Effectiveness/efficiency of management of in-country research;
- Regularity/frequency of communication among countries participating in the cooperative research;
- Feasibility of the schedules: meeting of target dates in the timetable.

b. The programme effect and impact will be measured by using the following indicators:

- awareness of problems and issues in SMATE;
- number of countries participating in various activities;
- number of research studies conducted in the country by the programme participants;
- number of SMATE personnel whose research skills have been updated;
- commitment of research staff;
- effectiveness of management of the research project at the country level;
- adaption/adoption of ideas gained from country visits;
- skills, attitude and knowledge change resulting from training workshops;
- adoption of the adaptive management and research model for the study of problems in other areas;
- country initiatives at seeking funding for research in related areas;
- country initiation of innovations based on research findings;
- institutionalization of action research on other SMATE concerns;
- infusion of the adaptive management model.

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MAJOR PROGRAMME AREA: REORIENTATION AND QUALITATIVE IMPROVEMENT OF SECONDARY EDUCATION (INCLUDING GENERAL EDUCATION AND VOCATIONAL/TECHNICAL EDUCATION)

Issues

In many Member States, education for all is being consolidated during the first level of education. Yet it is becoming clear that education of five or six years will not be enough to cope with the demands of the twenty-first century. To some extent, this has been recognized by the Member States, and transition rates from the first to second level education have generally, although not uniformly, increased between 1980 and 1990. Coupled with this realization is the social pressure to widen access to the second level of education.

Yet in providing wider access to the second level of education, there are a number of problems to be considered. In many member countries, the second level of education has generally remained selective, being somewhat restricted and not available for all. Barriers such as examinations and certificates often restrict entry. As a pathway, second- level education is often designed to lead, by and large, to higher education and partly to employment in occupations. The curriculum at this level is often dominated by the demands of entrance to universities and is heavily discipline- and subject-matter focused. This often leads to a narrowly academic curriculum, unrelated to the needs of everyday life.

If more young people are to be encouraged to continue to second-level education, then it must be oriented so that it is capable of performing a new function in the future. That function should be related to education for all in the context of societies requiring a highly skilled, intelligent and thoughtful citizenry. The emphasis of such an education needs to be on the capacity to provide a practical, relevant and useful education that will assist young people to meet the demands of the twenty-first century.

This reorientation of secondary education must result in qualitative improvement both for young people and nations as a whole. It will require new ways of thinking about the curriculum, assessment, teacher training and the organization and management of educational provision, including non-formal and distance education. The long-term outcome should be the reorientation of secondary education as it has been known throughout the twentieth century.

Purposes

The main purpose of specific action areas within this programme is to promote innovative approaches that will assist Member States in re-orienting secondary education so that it can meet the demands of the twenty-first century. Co-operative efforts among Member States will ensure that exemplary practices, policies and materials are shared on a regional basis. Such efforts will add value to specific national activities designed to re-orient secondary education. New areas of need can also be identified on a regional basis so that co-operative activities focused on materials development and personnel training can also be undertaken. The transformation of secondary education should enable students to become creative, flexible and adaptable, capable of life-long learning, able to contribute to the productive capacity of society and imbued with moral and ethical considerations and consequences of individual action.

The reorientation of secondary education would meet the following objectives related to students and societies:

1. Students would be able to:

   - work co-operatively in group contexts;

   - communicate effectively with peers and adults;

   - think critically about issues and problems confronting society;

   - develop critical competencies that will allow them to contribute to the productive capacity of society;

   - appreciate the need for considered action in relation to major issues concerned with morals, ethics and values.

2. Societies would be able to:

   - respond flexibly and creatively to change;

   - appreciate the need to develop the productive capacities of all citizens;

   - facilitate the equitable distribution of resources.

Target groups

The action areas under this programme are designed for all population groups involved in both formal and non-formal secondary education. Special efforts need to be made to encourage the participation of girls in the second level of education.

Monitoring and evaluation

Specific evaluation procedures will be designed for each action area. These will contribute to the overall evaluation of programme areas to be undertaken throughout the fifth cycle of APEID.

Structuring of the Programme Area

The programme area will be structured in the following way:

- Qualitative improvement of secondary education through curriculum reforms cum teacher training;
- Use of educational technology (including computer) to enhance efficiency and effectiveness of secondary education;
- Innovative education for promoting enterprise competencies at the secondary level;
- Education and work;
- Promoting identification and/or nurturing of the gifted and talented in diverse fields;
- Innovation in students' assessment, including examination reform and national norms for achievement;
- Innovative and alternative forms of secondary education : non-formal and distance education;
- Innovative and alternative systems of organization, management and curriculum models within formal structures of secondary education.

Proposed Regional Co-operative Mechanism for the Reorientation and Qualitative Improvement of Secondary Education

The Reorientation and Qualitative Improvement of Secondary Education (RQISE) is a co-operative endeavour of APEID Member

States. It is based on their wish to help each other and share their experiences within a regional framework. The regional programme of RQISE will draw on the experiences and needs of Member States in such a way that value will be added to national efforts from involvement in regional activities.

With the aim of facilitating inter-country co-operation and consultation, including overall review of the current situation, joint planning of the different action areas, and overall evaluation of the progress of RQISE, a Regional Expert Group (REG) on RQISE will be constituted consisting of: (a) persons with expertise and actively involved in re-structuring secondary education of participating governments; (b) heads of APEID Associated Centres (ACs) primarily concerned with secondary education or heads of the department/division/unit of multi-disciplinary APEID's ACs; and (c) limited number of individuals in personal capacity for reasons of their expertise and experience relative to secondary education.

The REG may opt to constitute panels or sub-groups for each of the action areas/clusters, for example on curriculum renovation, enterprise education, education and work, assessment and evaluation, and nurturing talent.

The REG will also facilitate linkages with national projects in RQISE especially those funded by external sources.

The services of members of REG will be available on request for providing technical assistance on an institutional or individual basis to any participating country.

Unesco PROAP and within it ACEID will continue to be facilitators, and energizing agents for RQISE.

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Action Area: Qualitative Improvement of Secondary Education through Curriculum Reforms Cum Teacher Training

Rationale

Secondary education is a crucial link in the education system between primary school and the world of work and higher education. In view of emerging trends to extend basic education to also include secondary education (at least lower secondary), to equip secondary students with intellectual, social and technical vocational skills, and to increase learners' understanding of the importance of morals, ethics, values and

issues, there is a need to initiate curriculum innovations at the secondary school level. Curriculum change will be fundamental in the reorientation and qualitative improvement of secondary education.

In many countries more and more young people are gaining access to secondary education. Yet measures to increase the number of students participating at the second level of education say nothing about the quality of that education. Secondary school graduates tend to be ill-prepared for the world of work and for university education. Many secondary school graduates not only become unemployed, but are also unemployable. They can memorize but do not have skills for critical and analytical thinking. Even when they do qualify for university education, many are unable to pursue successfully more challenging courses. Social skills such as communication and co-operation are often not adequately developed. Hence human resource development is not optimized. Morals, ethics and values also tend to be eroded by materialistic tendencies which secondary schools seem to develop and promote.

Curricular reform to remedy the situation would of course imply the emergence of new competencies required of teachers; hence the need for new training programmes that will equip teachers with the necessary skills for developing new curricula and teaching more effectively.

Status

Current

Many countries in the region have or are about to attain universal primary education. Many countries have also realized that 5 to 6 years of primary education is not enough to cope with the demands of the 1990s and would certainly be insufficient to meet the requirements of the 21st century. By and large, the present day secondary education curriculum is not designed to adequately equip young people with, what Colin Ball calls, an academic passport, a vocational passport and an enterprise passport. In addition, in many countries, the secondary education curriculum is not adequately equipping students with social skills and moral and ethical values. And in many countries, the system of teacher education is not sufficiently responsive to changes in the content of the curriculum, and to the teaching-learning methodologies and materials needed in the schools.

Status expected at the end of APEID's fifth programming cycle

At the end of the programming cycle, it is expected that shortcomings of the existing curriculum will be identified and some actions taken to remedy them. This will include efforts at curriculum renovations designed to equip students with intellectual (including enterprise skills), vocational, and social skills as well as imbue them with morals, ethics and values. Competencies required of teachers in relation to curriculum reforms would have been identified and action providing teachers with the new competencies initiated.

Furthermore, a design framework for human resource development would have been developed, thus ensuring that secondary school students have access to knowledge, skills and values that can be used as the basis for individual, local and national development.

Objectives

Long-term

To develop a secondary education curriculum which would equip young people with academic passport, vocational passport, enterprise passport, and imbue them with social skills as well as morals, ethics and values; and to launch retraining of teachers designed to develop in them new competencies emerging from curriculum renovations.

Immediate

i) To assess existing secondary education curriculum vis-a-vis the emerging demands of the 1990s and the foreseeable demands of the twenty-first century;

ii) To develop alternative prototype secondary education curricula designed to provide young people with academic passport, vocational passport, enterprise passport and imbue them with social skills, as well as morals, ethics and values;

iii) To initiate reforms of secondary education curriculum in countries of the region designed to qualitatively improve secondary education;

iv) To develop new teacher competencies in response to mega-trends in curricula of secondary education.

Expected outcomes

1. A compendium of country studies on assessment of existing secondary edcuation curriculum; identification of areas for improvement, bearing in mind the emerging demands of the 1990s and the twenty-first century;

2. Alternative prototypes of secondary education curricula designed to provide young people with academic passport, vocational passport, enterprise passport; social skills as well as morals, ethics and values;

3. Renovated secondary education curriculum in countries of the region;

4. Trained corps of teacher educators and teachers in the new competencies emerging from curricular renovations.

Activities

Relating to Outcome 1

i) Convene a small technical working group at the regional level to develop an evaluative research/assessment design and guidelines for country studies of secondary education curricula;

ii) Conduct country studies by availing of the expertise and services of one of the APEID Associated Centres in each participating country;

iii) Produce a compendium of the country studies, and commission a consultant to prepare a regional perspective and analysis.

Relating to Outcome 2

i) Convene a regional experts meeting to discuss the country studies and the regional perspective; and to develop alternative prototype curricula.

Relating to Outcome 3

i) National workshops to adapt and/or develop a new secondary education curriculum bearing in mind the needs and requirements of the country, as well as the resources at its disposal;

ii) Try-out of the new curriculum, its revision and its implementation nation-wide;

iii) Organize inter-country visits to share experiences;

iv) Exchange resource persons and materials.

Relating to Outcome 4

i) Organize a national workshop to identify new competencies required of teachers arising from curricular renovations;

ii) Organize training programmes for teacher trainers and teacher educators; and eventually teachers.

Monitoring and evaluation

Performance could be assessed in terms of the (i) efficient conduct of the country studies in relation to a pre-determined schedule; (ii) the extent to which the study design and guideline have been adhered to; (iii) the critical analyses of the strengths and weaknesses of existing secondary education curriculum; (iv) conduct of follow-up national workshops on curricular renovations.

Effects could be assessed in terms of (i) the number of countries which realize the need for curricular renovations; (ii) the number of countries which actually initiate curricular renovations; (iii) the number of teachers, teacher educators and teachers who acquire new competencies arising from curricular renovations; (iv) the extent to which curricular renovations are transformed into curricular reforms for nation-wide implementation.

It would be said that the curriculum renovations and reforms have impact, if in fact it is instrumental in equipping young people with academic, vocational enterprise passports; and imbue them with social skills, morals, ethics and values.

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Action Area: **The Use of Educational Technology (including Computers) to Enhance Efficiency, Effectiveness and Quality of Secondary Education**

Rationale

Educational technology, as shown by many studies, enhances the efficiency, effectiveness and quality of education.

Educational programmes through the radio have widened the outreach of education at a much lower cost. Educational TV has been proven to be a powerful medium of instruction where a specialist's or an expert's presentation or demonstration teaching can efficiently and effectively reach large numbers of learners. Likewise computer-assisted instruction through individualized learning and independent study promotes positive attitudes towards learning and teaching and improves the quality of academic performance. In short, the appropriate use of educational technology helps learners to learn more, faster and more thoroughly and does more than the ordinary classroom teaching to arouse and hold attention, stimulate and motivate action and enhance skill development.

Status of the problem

Current

Many developing countries in the Asia and Pacific region face the problems of lack of resources and the shortage of trained and experienced personnel to meet their educational needs. This brings about inefficiency and ineffectiveness in teaching and learning resulting in low quality education. At the secondary level low quality is reflected at two levels: firstly the quality of students' level of knowledge, understanding and skills which is inadequate in terms of breadth and depth, and secondly at the institutional level where the standard of performance in many schools especially in rural and disadvantaged areas appears to be unsatisfactory. For the solution of this problem, countries are increasingly considering the use of educational technology to improve efficiency, effectiveness and quality of teaching and learning.

In the previous programming cycle APEID placed some emphasis on educational technology as a supporting activity for all educational levels.

Status expected at the end of APEID fifth programming cycle

This project would serve to create awareness and appreciation for the need to develop and implement large-scale plans to use educational technology for promoting quality education at secondary level. The member countries are likely to implement specific activities.

Objectives

Long-term

The long-term goal of the effort is to enhance efficiency, effectiveness and quality of education for secondary school students by utilizing educational technology.

Immediate

- To examine the existing status in the use of educational technology;

- To prepare guidelines on the basis of which national needs can be identified;

- To develop and implement effective strategies and procedures for developing innovative and creative instructional technology programmes and materials to improve the efficiency, effectiveness and quality of learning of secondary school students;

- To conduct training programmes at the regional and national levels to increase the supply of key personnel and material developers in specific areas of educational technology;

- To develop and implement projects at the national level for developing innovative and creative programmes, instructional and learning materials, and packages for use by teachers and students at the secondary level.

Expected outcomes

1. Information about the status of educational technology;

2. Increased awareness of how to use educational technology for making secondary education more efficient and effective;

3. Guidelines for establishing national needs and for development of national projects to promote effective use of educational technology;

4. Increased availability of appropriate multi-media teaching, and learning materials for students and teachers at the secondary education level;

5. Increased availability of trainers and key personnel to conduct in-service training for teachers in specific areas of educational technology to achieve multiplier effect;

6. Increased availability of skilled and trained personnel needed to intensify the use of educational technology to promote efficiency, effectiveness, and quality education at the secondary education level.

Activities

Relating to Outcomes 1 and 2

It is proposed to undertake country studies of the extent and purposes for which educational technology is being used in Member States. The studies will also indicate the problems that countries are facing in extending the use of educational technology. For the purpose of the studies, the following actions will be taken:

i) Regional study group meeting of experts to be convened to prepare a format and guidelines for the studies to be undertaken by member countries;

ii) Identification of institutions in member countries for country studies;

iii) National seminars/workshops for finalization of the draft of the study;

iv) Synthesis of the situation in various countries by a consultant to be commissioned by ACEID;

v) Dissemination of the findings of the country studies and also of synthesis report.

Relating to Outcomes 3 amd 4

i) Regional meeting of experts and specialists to prepare guidelines for developing appropriate learning and instructional materials for use at the secondary education level;

ii) Attachments of personnel from member countries to Associated Centres specializing in the use of educational technology for training in the preparation of multi-media teaching-learning packages;

iii) National-level workshops to develop learning and instructional materials suitable for national and local needs for use at the secondary education level;

iv) Study visits and exchange of materials among countries in the region.

Relating to Outcome 5

i) Regional training course for specialists and key personnel at international training centres within the region;

ii) National training courses for specialists and key personnel at national training centres;

iii) Attachments and study visits for specialists and key personnel.

Relating to Outcome 6

i) National and sub-national in-service training programmes and workshops to upgrade and improve the knowledge and skills of educational personnel at the secondary education level with respect to the use of educational technology;

ii) Inclusion of courses on the use of educational technology in the instructional programmes of teacher training institutions.

Monitoring and evaluation

Monitoring will attempt to determine the extent to which pre-determined schedules are being followed in finalizing country studies and the regional synthesis of the country experiences both at the national level as well as at the regional level. This process will also be followed in respect of the preparation of guidelines and the actual development of multi-media packages for use in schools.

Evaluation will require the study of the effects of the activity. Some of the indicators would include:

- the number of teacher educators, teachers and other educational personnel trained regionally and nationally in the development and use of educational technology materials;

- the number, quality and extent of the use of the multi-media packages;

- the effectiveness of the use of educational technology in enhancing teaching and learning which could be done through an experimental project in a cluster of schools.

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Action Area: Innovative Education for Promoting Enterprise Competencies at the Secondary Level

Rationale

Unemployment and under-employment is a significant and growing problem in the Asia and Pacific region. The problem is particularly acute for young people who leave secondary school early for reasons such as poverty, family and work obligations, low educational achievement or inappropriateness of the school system. Technology and changes in the organization of work, in both the developing and less developed countries, are in some cases reducing the employment opportunities available for young people while in others making skills obsolete. It is unlikely that the formal wage structured employment channels, even with considerable economic development, will be able to ameliorate the current (and projected) mass unemployment, especially of youth.

At the second level of education, increased emphasis sneeds to be given to attitudes and values relevant to the realities of the workplace, apart from equipping the school leavers with knowledge and skills required in the labour market.

Enterprise competencies such as those that trigger action (e.g., perseverance, ambition, initiative, flexibility, risk taking), empower for action (e.g., social, operations/management skills, networking, etc.) and sustain action (e.g., coping with success and failure, futures planning) are vital to productive employment in many areas.

Status of the problem

Current

In many countries, secondary school education tends to be academic and does not adequately prepare learners for the world of work. While some countries have established vocational high schools and others have introduced components related to the world of work in general education, programmes often focus on

technical and vocational skills development rather than the range of competencies required in the realities of work in life, particularly for self-employment.

During the fourth APEID programming cycle, a Joint Innovative Project (JIP) on Education for Promoting the Enterprise Competencies of Children and Youth is being cooperatively implemented. The JIP focuses primarily on drop-outs and graduates from the first level of education who are not proceeding to the second level.

Status expected at the end of APEID's fifth programming cycle

This action area will be implemented in the form of a Joint Innovative Project. By the end of APEID's fifth programming cycle, it will have served as a catalyst for the introduction of innovative education for promoting enterprise competencies at the secondary level in the region.

Objectives

Long-term:

- To create in young people enterprise competencies and abilities particularly those for self-generation of income/self-employment.

Immediate

1. To provide enterprise competencies to potential early secondary school leavers in the targeted development areas;

2. To produce national action plans to enhance enterprise competencies at the secondary level;

3. To develop appropriate materials designed to enhance enterprise competencies, for formal and non-formal education systems;

4. To train personnel to infuse education for the promotion of enterprise competencies at the macro and micro levels in the formal and non-formal systems.

Expected outcomes

Long-term

- Secondary school leavers will have enterprising proficiencies for employment, particularly self-employment. There will, therefore, be less likelihood of secondary school graduates joining the ranks of the unemployed.

Immediate

1. Attainment of enterprise competencies by early secondary school leavers in the targeted development areas;

2. Identification of national needs and development of national action plans;

3. Production of appropriate materials for use in developing enterprise competencies at the secondary level;

4. Availability of trained personnel to facilitate the development of enterprise competencies.

Activities

Relating to immediate outcomes 1-4

1. Regional technical working group meeting to review current status of innovative education promoting enterprise competencies, particularly during APEID's fourth cycle JIP; and to plan, develop and design a joint innovative project at the secondary level;

2. National teams/workshops to prepare and implement national action plans;

3. Regional technical group meetings to periodically review progress.

Relating to immediate outcome 3

1. Regional expert meeting to prepare guidelines for developing prototype materials;

2. Attachments for materials developers;

3. National activities to prepare and test materials;

4. Production of final materials for wider dissemination and use.

Relating to immediate outcome 4

1. Regional expert working group to prepare materials for training of personnel for promoting enterprise competencies;

2. Attachments or exchange of personnel for training;

3. National training workshops to ensure a multiplier effect.

Monitoring and evaluation

National

1. Sample surveys of target group to assess post-school employment activities;

2. Review of the extent to which materials produced are used;

3. Number of teachers who have benefited directly and indirectly from the training programmes;

4. Number of students who have benefited indirectly from the project (materials and/or trained personnel).

Regional

- Inter-country exchange of experiences and information;

- Review of progress of regional project: mid-term and final.

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Action Area: Education and Work

Rationale

Rapid changes occurring in the work place, particularly as a consequence of new technologies, require continuous assessment of the skills required for active participation in the workforce.

Young people must be equipped with these skills in order to facilitate their transition from secondary education to the workforce or further education and training. In the coming cycle, therefore, emphasis will be placed on the skill requirements of present and future occupations so that links between education and the world of work are strengthened. During the fourth cycle of APEID activities, some emphases was given to introducing work as an integral part of general education.

There is increasing recognition that the workplace of the future will make new demands on individuals. Members of the workforce will have to be prepared for a number of different jobs throughout their working lives. Initial job preparation may focus on multi-skilling and the development of core competencies that will enable people to operate across a number of traditional job categories. Workers of the future will need to be flexible and adaptable as they proceed through their working lives.

Given the scenario for the future, secondary schools cannot operate in isolation from the world of work. Productive partnerships will need to be developed between schools and employing establishments so that young people can both understand and experience directly the demands and requirements of the workplace. This will also involve a change of values on the part of individuals and society so that all forms of work - manual, mental or service - will be valued equally with academic learning. At the same time, employers must also accept some responsibility for contributing towards the training of the workforce of the future.

Status of the problem/programme

Member States have recognized the need and are addressing the relationship between education and work in different ways. In some cases, vocational and general education are quite separate; in others there is a more integrated approach. Work experience and training in skills within industry are provided in some countries. Nevertheless, for many educators, the demands of the workplace remain marginal to the mainstream concerns of providing an academic education. This value will need to be changed if the world of work is to be included as part of secondary education.

If education for the future is to be practical and relevant to the needs of young people in general, and society in particular, there will need to be greater integration between the needs of the workplace and the type of education provided by secondary schools. The emphasis in the future will not be on

providing a narrow, academic and abstract education, since this will not adequately equip students for the future. Throughout the fifth cycle of APEID, innovative activities within this action area will be designed to assist in the reorientation of secondary education so that it is able to equip students with skills that will enable them to participate effectively in the labour market. This will also facilitate a change in values so that practical and academic activities are equally emphasized in secondary schooling.

Objectives

Long-term

1) To effect a closer integration between the objectives of technical and vocational education and general education;

2) To provide flexible pathways for students which will enable them to move between general and vocational education so as to gain the necessary skills for further education, training and employment;

3) To reorient value stances so that academic work and practical work are seen as equally valid pathways.

Immediate

1) To identify skill requirements in existing and projected occupational categories likely to attract secondary school graduates;

2) To assist teachers in general, technical and vocational education in developing instructional programmes for students based on existing and projected occupational needs, including a values component highlighting the importance of practical skills;

3) To identify effective school-industry relationships.

Expected outcomes

1) Trained personnel to undertake human resource development forecasts;

2) Human resource development forecasts related to skill requirements in existing and future occupational categories;

3) Prototype instructional materials to assist classroom implementation of specific skill requirements and the value of those skills to individuals and society;

4) Training manuals to assist in the training of teachers in the use of the prototype instructional materials;

5) Information on country experiences in establishing linkages between education and industry;

6) Growth points (e.g. a cluster of schools in an identified area) for try-out of new instructional programmes and materials.

Activities

Relating to Outcome 1

Attachments of personnel from Member States for training at APEID Associated Centres or institutions which have expertise in human resource development forecasts.

Relating to Outcome 2

Human resource development planning survey relevant to national needs to be designed by personnel during attachments at APEID Associated Centres and/or institutions with expertise, and implemented on return.

Relating to Outcome 3

i) Regional workshop to develop guidelines for the development of prototype instructional materials;

ii) National workshops for the development of instructional materials in relation to a variety of skill training needs.

Relating to Outcome 4

National-level workshop of experts to develop training manual required for the training of teachers in the use of materials and strategies.

Relating to Outcome 5

i) National studies on country experiences and approaches in developing school-industry relationships on the basis of a format prepared by an expert group commissioned for the purpose by ACEID;

ii) Synthesis of studies to be prepared by a consultant commissioned by ACEID;

iii) Regional study group meeting to review approaches to school-industry relationships and identify national development growth points;

iv) Regional review and assessment of the national experiences of the programmes introduced at selected growth points.

Monitoring and evaluation

1) Associated Centres or institutions responsible for attachments will provide an inventory of human resource development planning skills so that the trainees can develop skills profiles of their countries.

2) National human resource development forecasts prepared by trainees will be assessed and evaluated for their implications.

3) Formative and summative evaluation processes will be used in the development of prototype instructional materials. The materials themselves will contain assessment instruments to assist in the measurement of student performance against all the objectives listed for the materials, including those designed for the development of values and attitudes.

4) A training manual will be developed on the basis of feedback from activities (3) so that it can be used for training purposes.

5) Appropriate infrastructure will be created at the national level to:

- document the nature and processes of education-industry linkages;

- regularly monitor the various activities listed above;

- undertake periodic surveys to determine the effectiveness of education and skill training activities;

- advise on changes needed in policies and programmes;

- supervise the implementation of activities in experimental areas (growth points).

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Action Area: Promoting Identification and/or Nurturing of the Talented.

Rationale

The Twelfth Regional Consultation Meeting recognized the gifted as a category whose educational needs were not being met by current education systems. The major factors responsible for this situation are the uniform curricular offerings that schools provide, rigidities of institutional structure and operations and the tendency to promote conformity on the part of children in spite of their different potentialities. Educational institutions do not generally encourage divergent thinking.

Children differ in their aptitudes and potential. Some have special aptitude for music, while others might display special talent for mathematics. The education system must develop the capability to identify and nurture talent so that the quality of people's contribution to diverse aspects of community life is enhanced.

Although APEID earlier ventured into the area by undertaking activities in respect of the talented in science, effort in identifying and promoting talent has not been systematic, nor its coverage extensive.

Status

Current

Information about the practices obtaining in the region is scanty. It would seem that generally the school systems follow two practices to provide for the needs of the academically talented:

Mainstreaming: The academically talented are educated along with other children. There is, at times, a provision for accelerated learning for the talented.

Segregation: Special schools are set up for children showing talent in a distinct area, such as music, painting, mathematics, sciences, etc.

In most countries financial incentives, in the form of scholarships are provided to talented children to enable them to pursue their studies even at the advanced level.

Status if no action is taken

Non-nurture of talent prevents the talented to realize their potential and contribute creatively to the national wellbeing. Further, if the talented are unable to realize their potential in the country, they are likely to seek environments which provide a more stimulating opportunity for their education and personal growth. This migration of talent has serious implications for the developing countries and slackens their process of social and economic development.

Objectives

Long-term

An action plan for identification and nurture of talent so that the quality of contribution to diverse aspects of national life is enhanced.

Immediate

Information about what is being done in different countries of the region is scanty. It would be, therefore, worthwhile to undertake as a first step a study which provides information about the processes that Member States have adopted to identify and nurture talent. The immediate objectives are:

i) To identify national criteria for determining talent;

ii) To identify categories of talented catered for, e.g., the mathematically gifted, the scientifically gifted, etc.;

iii) To identify nationally adopted methods to address educational provisions for the gifted;

iv) To determine the relative importance of various methods.

It is expected that on the basis of the findings of the country studies, Member States will adopt appropriate strategies and implement suitable programmes to address the educational needs of the talented. These strategies could be tested through projects in a cluster of schools and/or in an area. The findings

from these "experimental" projects would help member countries to develop a plan of action for implementation on a nation-wide basis.

Expected outcomes

The outcomes from the activity will include:

- reports of national studies giving a possible indication of the relative utility of various modes in operation for identification and nurturing of talent;
- experimental projects designed to meet the educational needs of the talented;
- possible action on the part of Member States in designing specific action plans for nurturing and educating the talented.

Activities

The activities which are proposed to be initiated in relation to each of the outcomes are given below:

Expected outcomes	Activities
(i) Reports of national studies providing information on the existing situation;	(i) A meeting of experts to be convened under the auspices of APEID to - clarify the concepts; - prepare a format for the national studies; - suggest the information schedules to be canvassed.
	(ii) Member States will designate an institution for the studies. A time schedule will be drawn up for finalization of the study.
	(iii) At the national level a workshop/seminar will be organized to consider the draft report and finalize it.

(ii)	Synthesis of the country studies to be prepared at ACEID to present a regional picture;	ACEID will commission a consultant to prepare a synthesis of country studies.
(iii)	A plan of action prepared by the Member States.	An expert group will be constituted in each Member State to prepare a specific plan.

Monitoring and evaluation

While monitoring will be in respect of the conduct of the studies, evaluation would concern itself with the subsequent action that might result from the findings of the study. As regards the former, the designated institution would be asked to prepare a time schedule which will indicate the various stages for the completion of the study such as, preparation and finalization of schedules, selection of the universe and sample for convassing of schedules, collection of data, processing of data, preparation of the first draft of the study.

Evaluation of the benefit/impact of the study would be judged on two accounts:

- follow-up action that has resulted from the study, for instance in the form of a plan of action;
- actual implementation of the plan of action on an experimental basis.

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Action Area: Innovation in Student Assessment, including Examination Reform and National Norms for Achievement

Rationale

Development problem

The Twelfth Regional Consultation Meeting on APEID identified assessment of students' performance and examination reform as important areas for innovative intervention. The RCM felt the need for an in-depth study of current practices with a view to developing guidelines which might help countries to initiate appropriate reforms in evaluation/examination practices.

The need for innovative intervention flows from the fact that, in many countries in the region, public examinations continue to exert an undue influence on curriculum, learning behaviour of students and the delivery modes that teachers adopt. Instead of being an instrument for enhancing learning, many of the present evaluation practices seem to encourage memorization of content. The examinations tend to overemphasize the cognitive domain of human personality, neglecting to evaluate students' attainments in affective and psycho-motor domains. Since the latter are not evaluated, the emphasis is on subject matter learning.

To cope with the requirements of the twenty-first century, students will require a variety of competencies, all of which might not be cognitive in character. The cognitive skills - abstract reasoning, ability to deal with knowledge on the basis of its relevance and utility to problem solving, ability to undertake systematic analysis of issues and so on - are no doubt important for a secondary school graduate to possess. Yet she/he must also have appropriate skills needed by a productive member of the community and attitudes required of a citizen concerned with such significant issues as community's well-being, population growth, creative use of environmental resources, peace and international understanding. Her/his behaviour must be governed by moral and ethical considerations. An individual must feel personally responsible and accountable for her/his actions and their consequences. Without these competencies and understandings being stressed in evaluation/examination, schools would tend to attach less importance to the designing of appropriate instructional programmes.

In some countries, the multiplicity of agencies conducting public examinations (such as provincial and state boards) poses the problem of equating the attainment levels of students coming from different regions. The varying expectations of students' achievement also tend to place students examined by "lenient" examining agencies in a disadvantageous position in respect of admission to tertiary level institutions and preferred courses and entry into more rewarding avenues of employment.

The reorientation of assessment/examination practices, therefore, becomes an important measure for a change in educational objectives and teaching-learning processes. With diagnostic testing, for instance, assessment of students' performance can become an important tool for enhancing student learning - by sensitizing the teacher to the problems faced by students and therefore, requiring a change in teaching strategies and feedback to students about their deficiencies in some basic competencies required for more effective learning.

Unless the problems referred to above are addressed, the current assessment/examinations will persist in promoting less than optimal learning on the part of students and neglect of other domains of human personality which are as significant to individual's growth as the cognitive domain. Without national norms of achievement, schools in certain regions and sub-regions of the country will tend to expect and demand of their students performance levels which are lower than those of other regions/sub-regions, thereby affecting students' chances of upward mobility.

Status

Current

Assessment/examination practices vary in Member States. In some, assessment of students' performance is school-based, each teacher evaluating continuously the performance of students in her/his subjects. The grade certificate given by the school - cumulative or for each subject area - is used by tertiary level institutions and employing agencies to judge the competency of a secondary school graduate. These agencies also use their own criteria for judging the relative merit of these graduates. Over the years some educational institutions have built a reputation for themselves by providing more stimulating environment for learning and by demanding higher levels of performance from students.

In other countries there is an exclusive reliance on public examinations, conducted by such agencies as school boards. Assessment is made on the basis of tests, prepared by examiners who may have no teaching functions in schools whose students sit for the examination. In others, a mixed system is in operation, with some weightage being given to internal assessment of students' performance by a classroom/subject teacher. In school systems using public examination as the exclusive mode of assessment, students' performance is evaluated at the end of a stage of education.

At the end of APEID's fifth programming cycle

A reorientation of the assessment/examination practices, in those countries where there is exclusive reliance on public examinations at the end of the terminal stage, might lead to positive gains in enhancing the quality of teaching and student learning. The establishment of national norms might be used by schools as reference points for judging the effectiveness of their instructional programmes and teaching-learning strategies.

The feed-back might be used to enhance the quality of their activities.

Objectives

Long-term

The long-term objectives would include the qualitative improvement of secondary schooling which aims at an all-round development of a student. This will be brought about by enhancing her/his learning at school and adequately emphasizing other domains of her/his personality. The development and application of norms might help schools to improve their efficiency and effectiveness in terms of the learning environment that they provide to students. The comparison of their attainments against national norms might also motivate students for higher achievement levels. The graduates of secondary schools are likely to develop competencies required to face the challenges of an ever changing world.

Immediate

The immediate objectives would include:

- identification of existing practices followed in Member States in evaluating secondary school students' performance;

- identification of the problems faced, and work undertaken in evolving national norms, for assessing performance levels of secondary school graduates;

- designing of improved formats and tools for assessing students' performance;

- preparation of guidelines for assisting teachers and personnel of examining bodies in designing and using improved formats and measuring instruments;

- training of teachers and personnel of examining bodies in the use of improved modalities of evaluating student learning.

It would be worthwhile to bring about, during the programming cycle, a change in forms of assessment/examination. For this, a cluster of schools, representing various educational situations, could be chosen. Similarly, the "national" norms that will be evolved could be tried out in selected schools

affiliated to different examining agencies. Such try-outs would indicate the problems for which appropriate solutions will be designed before the adoption of new approaches on a systemwide basis.

Expected outcomes

The expected outcomes would include:

- a compendium of information on existing practices of assessing student performance in secondary schools;
- information on the eforts and modalities adopted for evolving national norms of achievement of secondary school students and the purposes for which they are used;
- a handbook containing guidelines for teachers and personnel of examining bodies in the preparation of improved formats of pupil assessment;
- inventories/packages of prototypes of tools for measuring student learning in its diverse dimensions;
- competencies among teachers and personnel of examining bodies required for use of improved formats/tools of measuring student's performance;
- findings from tryouts of new modalities.

Activities

The activities which are proposed to address to each of the expected outcomes are indicated below:

Expected outcomes	Activities
i) Information on existing modalities used for assessing student performance;	a) National studies requiring:
ii) Information on the efforts and modalities for designing and adoption of national norms of achievement;	i) Sub-regional meeting of an expert group drawn from member countries having similar evaluation systems for designing a common format for national level studies;

	ii) Identification of individuals/institutions for conducting national studies using the common format;
	iii) National workshop for finalization of the study;
	iv) Synthesis of national studies to be done by a consultant;
	b) Inter-country study visits;
	c) Inter-country exchange of materials;
iii) Handbook containing guidelines for teachers and personnel of examining bodies;	i) Constitution of an expert group drawn from in-country institutions for preparation of a handbook;
	ii) Printing and distribution of the handbook;
iv) Inventories and packages of prototype tools of measurement;	i) Contracting the services of suitable Associated Centres for preparation of informative inventories of currently available tools;
	ii) Support to institutions for developing the measuring tools suited to various socio-cultural and educational contexts;
	iii) Attachment of personnel of Associated Centres of the least developed countries to Associated Centres with requisite expertise for training;

	iv) Fielding of mobile training teams for training of personnel in countries requiring support;
v) Competencies among teachers and personnel of examining bodies in the use of new formats;	i) National and sub-national workshops for training of teacher educators, teachers and other personnel;
	ii) Incorporation in training syllabi of knowledge regarding new formats, along with practical training in their design and use;
vi) Try-outs of new formats.	Contracting the services of an institution for undertaking field tryouts of new assessment formats in a cluster of schools and of national norms in different educational contexts.

Monitoring and evaluation

Monitoring would refer primarily to the completion of activities according to a pre-determined schedule. It would be desirable to determine various stages of completing the activities suggested above. Those who are charged with responsibility of executing the different activities should be required to report continuously the state of implementation. The designated institutions should develop formats for such reporting and lay down the periodicity of submitting reports.

The effectiveness of the suggested activities could be evaluated on the basis of:

- the number of schools adopting new formats of assessment;
- the follow-up action taken by examining bodies to change their evaluation practices;

- the degree of change in student learning, which could be assessed through the comparison of pre- and post-intervention achievement of students;

- the availability and use of tools of measurement;

- the impact of intervention on curriculum and teaching strategies;

- the changes incorporated in training syllabi.

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Action Area: Innovative and Alternative Forms of Secondary Education : Non-formal/Distance Education

Rationale

Non-formal and/or distance education can be a preferred modality for continuing in education for those

- who, for economic and social reasons (the poor, girls), find it difficult to continue in formal schooling;

- who have settled down in various walks of life soon after completing the period of compulsory schooling but would now like to upgrade their general educational level (often to improve their job prospects);

- who find the need for upgrading/reorienting their skills in the light of changes that have been brought about by technological developments;

- living in areas where establishment of schools might prove to be costly or difficult (for instance, the unwillingness of qualified persons to accept teaching positions in these areas).

In developing countries of the region which have scarce resources, non-formal and/or distance education helps in widening the access to education, which has become important in the context of the demand for more places in secondary education from those who have completed the compulsory period of schooling.

These modalities are particularly suitable in a situation where, due to rapid social and economic changes, the content and technology of education has to be adjusted to provide for

emerging developments. The structure and operations of formal secondary schools are too rigid and inflexible to allow for "immediate" adaptation of the system to new requirements.

Non-formal/distance education arrangements have a decided edge for the following reasons:

- they are flexible in terms of the attendance at a fixed time and for a fixed duration, age of entry, previous educational preparation;
- the instructional programmes can be designed to meet the diverse needs of the different clientele;
- those who seek these channels of education are highly motivated for learning;
- the outreach of the programmes is larger, providing education to persons in far flung areas;
- they are cheaper in terms of per capita costs.

These "parallel" forms of secondary education need, therefore, to be promoted.

Status of the problem/programme

Current

Most countries in the region have developed and included these structures because of the demand for alternate educational opportunities by different client groups particularly those who because of circumstances have to leave school early. Distance education and NFE strategies show a wide variety of forms and operational modalities. In some countries of the region "open schools" have been established which enrol students and allow them to complete secondary education at their convenience by accumulating the required number of credits. In others, part-time and evening schools have been established for working adolescents. Competencies attained by clients who follow these programmes vary widely. Studies of these alternate systems can be undertaken and an attempt made for compiling information about the various forms that are operating in the region as well as their efficiency and effectiveness.

Expected

By completing the proposed activities, it is likely that a fund of information and experiences will become available which can be drawn upon by Member States to organize the non-formal/distance education on more effective lines. The trained

personnel, which will become available, would be in a position to deal with the variety of tasks required for design, development and effective implementation of non-formal and distance education programmes.

Objectives

Long-term

The long-term objective is to make available relevant secondary education to those groups who, for various reasons, cannot or will not enrol in the formal system. These alternate forms will help the countries to widen access to secondary education, the need for which is being strongly felt.

Immediate

The immediate objectives will include:

- to generate information about the nature and forms of non-formal and/or distance education modalities at the secondary stage;

- to promote an exchange of experiences in the countries and within the region;

- to strengthen national capabilities through training of personnel to design more efficient and effective programmes;

- to establish equivalence between the formal system of secondary education and non-formal/distance education to allow transfer from one to the other and to ensure graduates of the latter entry into tertiary education and employment;

- to establish linkages between non-formal/distance education and employing agencies by providing for upgrading/reorienting of the skills of workers.

Expected outcomes

The expected outcomes would include:

i) Information about the current status of non-formal/distance education modes at the secondary stage including the role played by them in widening access to education of distinct groups and in upgradation of the educational and skill levels of those who are in employment;

ii) Increased awareness of those who are operating the system;

iii) Trained personnel for such tasks as design and development of multi-media packages for use in non-formal education and distance education;

iv) A scheme of evaluation, including tools for measuring performance, which establishes equivalence between non-formal/distance education and formal schooling;

v) Reports of expert groups suggesting the modalities for establishing linkages between non-formal education/distance education and employing agencies on the basis of which concrete programmes can be undertaken for skill training of secondary school leavers.

Activities

The activities proposed to lead to the above outcomes are indicated below:

Expected outcomes	Activities
(i) Information on the current status of non-formal and distance education;	(i) Country studies to be undertaken by identified institutions on the basis of a design and format prepared by an expert group set up under APEID;
	(ii) Synthesis of country studies by a consultant commissioned for the purpose by ACEID;
(ii) Increased awareness of personnel engaged in operating non-formal/distance education;	(i) Dissemination of the findings of country studies and regional synthesis report;
	(ii) Study visits to countries with experience in organizing non-formal and distance education;

(iii) Trained personnel for various tasks;	(i)	Attachments for training of personnel to institutions with expertise in non-formal and distance education particularly in the design and development of multi-media packages for use by teachers and students;
	(ii)	Mobile training teams;
	(iii)	National and sub-national training workshops;
(iv) A scheme of evaluation needed for establishment of equivalence and tools for assessment of student performance;	(i)	Constitution at the national level of a group of experts for suggesting the design and format for research and development to be undertaken by competent individuals and institutions;
	(ii)	Identification of an institution with sufficient expertise and entrusting to it the task of developing performance measuring instruments. The research and development work, including the development of performance measuring instruments, would have to be undertaken in different educational situations;
(v) Reports of expert groups for establishing linkages with non-formal education/ distance education and employing agencies.	(i)	Constitution of a study group with representatives drawn from non-formal/distance education agencies and selected employing

agencies. The study group will suggest the modalities that should be adopted;

(ii) It would be useful to design and implement an experimental project in a growth area and/or cluster of non-formal/ distance education centres where the modalities suggested by the study group could be tried out.

Monitoring and evaluation

Monitoring of the various activities scheduled for the fifth programming cycle will be undertaken on the basis of predetermined schedules. The designated institutions and study/expert groups will be required to submit periodical progress reports of the work completed.

For evaluating the benefits of the various activities, suitable indicators will be developed. These will include:

- the reports of country studies which will indicate the current status of the operations;
- follow-up actions resulting from the activities in the form of national and sub-national training workshops and participation in them;
- the number of multi-media packages developed and their actual use;
- the establishment of evaluation mechanisms for determining equivalence of formal and non-formal/ distance education;
- availability of measuring instruments and their actual use;
- for experimental projects aiming at establishment of linkages with employing agencies, the data from baseline surveys will be compared with the changes that have taken place in employability of graduates of non-formal/distance education programmes.

Action Area: **Innovative and Alternative Systems of Organization, Management and Curriculum Models within Formal Structures of Secondary Education**

Rationale

A concern for further changes and new development growth points in formal secondary education was expressed in the fourth cycle of APEID. This action programme extends the work in an area which has already been started.

The development problem is threefold:

- the imperatives of enhancing the quality of secondary education to equip all learners for the challenges that they will face in the twenty-first century;

- the growing need for innovative and alternative models of organization, management and curriculum within formal structures of secondary education to meet different learning needs; this recognizes that one form of formal secondary education is not sufficient for all learners;

- the necessity for communities and Member States to develop innovative models to suit their conditions.

The consequences, if innovative models in secondary education are not developed, will be:

1) Some learners will not have access to secondary education;

2) Other learners will receive secondary education which will not suit their needs and the needs of the communities in which they function;

3) As a consequence of (1) and (2), the potential for national development will be reduced.

Status of the programme

Present status

Initial work in the fourth programming cycle focused on the development of an awareness of possible alternative structures and the exchange between countries of resource persons. Some nations and some institutions are developing

innovative alternatives within their formal structures but, in the region as a whole, much more of this developmental work is required if different needs of the growing number of students aspiring for secondary education are to be met.

Expected status at the end of APEID's fifth programming cycle

It is expected that by the end of the fifth programming cycle there will be many more innovative approaches to secondary education in the region generally and especially within nations. It is also expected that these approaches will focus more specifically on innovative models of organization, systems of management and curriculum reform.

Objectives

Long-term

Member States will have a number of institutions and individuals with the capability to design, develop and implement innovative models and their imcorporation in the secondary education system. Thus, the Member States will find it possible to continuously upgrade the quality and relevance of secondary education.

Short-term

In the short term it is hoped:

a) to develop an increased understanding in the region of the need for innovative models;

b) to identify the key points which require innovative interventions;

c) to train people with skills in designing innovative models;

d) to assist Member States to develop at least two innovative models within their own formal structures.

Expected outcomes

1) Information on the innovative models of secondary education already developed in the region;

2) Innovative models of secondary education with a specific focus on models of organization, of management and of curriculum;

3) Trained personnel with capacities to develop innovative models of organization, management, and curricula;

4) Information about the key elements requiring intervention.

Activities

Relating to Outcome 1

a) Case studies of innovative forms of secondary education and their synthesis;

b) Conference of national representatives to develop and disseminate knowledge about existing innovative models;

c) Review, through an expert group set up in the country, of the structure of secondary education with a view to identifying the key elements where interventions are urgently needed.

Relating to Outcome 2

a) Regional workshops for resource persons in designing innovative models with special focus on organization, management and systems of curriculum;

b) National workshops with the same purpose;

c) Establishment of experimental growth points to try out innovative models;

d) Evaluation of the experience of experimental growth points;

e) Follow-up regional meeting to synthesize national experiences in respect of experimental projects.

Relating to Outcome 3

a) Exchange of resource persons in the region to help in the development of trained personnel with innovative capacities;

b) Attachment of resource persons for training of personnel with specific innovative skills in innovative models of organization, management and curriculum in the Member States;

c) National and sub-national workshops for training of teachers and other education personnel.

Monitoring and evaluation

1) A mobile team of experts to be established to monitor the activities described in 1a to 2a:

   i) to ensure that the outcome for each activity is being achieved and in the prescribed time frame;

   ii) to ensure that the multiplier effect of the two sets of activities (relating to outcomes 1, 2) is happening and that they are focused as described.

2) A mid-term conference of experts who are not the mobile team, to evaluate progress in each of the three areas (relating to outcomes 1, 2, 3). The criteria to be used for assessment of performance could be:

   i) Number of national workshops held to train people in the designing of innovative models with the special focus;

   ii) Number of experimental growth points established;

   iii) Number of personnel trained in skills in innovative models.

3) An end-of-term evaluation conference of the evaluation experts and the mobile team should be held. The criteria for assessment of performance could be:

   i) As for the mid-term evaluation;

   ii) The number of new innovative models of organization, management and curriculum which have been introduced;

   iii) A set of qualitative indicators of changes resulting from the development of innovative models to indicate the potential for future applications.

* * * * * * * * * *

ANNEXES

ANNEX I

LIST OF PARTICIPANTS

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ANNEX II

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5. Mr. Khamtanh Chanthala (LAO)
6. U Khin Muang Yin (MYA)
7. Mr. G.N. Bachhar (NEP)
8. Mr. P. Bloomfield (TON)
9. Dr. Ian Birch (observer)
10. Dr. Proong Puangnadda (observer)
11. Mrs. Warunee Charupan (observer)
12. Mr. Panom Kaewkamnerd (resource person)
13. Dr. Raja Roy-Singh (special invitee)
14. Mr. P.K. Kasaju (Unesco PROAP/ACEID)
15. Mr. T. Kamibeppu (Unesco PROAP/ACEID)

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